

A satellite-style map of Latin America, showing the continent in green and brown, surrounded by the blue oceans. The text is overlaid on the map.

**2º Jornadas Nacionales Conjuntas de  
Alergia e Inmunología en Pediatría**

**SITUACIÓN ACTUAL  
DEL CONTROL DEL ASMA  
EN LATINOAMÉRICA**

**Rosario, 13 de abril de 2013**



*Provincia de Santa Fe*  
*Ministerio de Salud y Medio Ambiente*



**Hospital de Niños**  
**Dr. Orlando Alassia**



**Dr. Hugo E. Neffén**

**Head of the Respiratory Medicine Unit**  
**Santa Fe - Argentina**

# DIA MUNDIAL DEL ASMA



**“Ud. puede controlar su asma”**

**7 de mayo de 2013**

**Es tiempo de ... controlar su asma.**

**Es tiempo de ... conocer los medicamentos que permiten controlar su asma.**

**Es tiempo de ... hacer un plan del manejo del asma.**

**Es tiempo de ... aprender a reconocer un ataque de asma.**

# DIA MUNDIAL DEL ASMA



**Ud. puede controlar su asma**

**Es tiempo de ... convertir a las escuelas en un lugar seguro para los niños con asma.**

**Es tiempo de ... limpiar el aire y ayudar a prevenir los ataques de asma.**

**Es tiempo de ... proporcionar la medicación adecuada a todos los pacientes con asma.**

**Es tiempo de ... detener las muertes por asma.**

❖ **AIRLA : 2003**

❖ **AIM : 2011**

❖ **Impacto economico del asma  
no controlado**



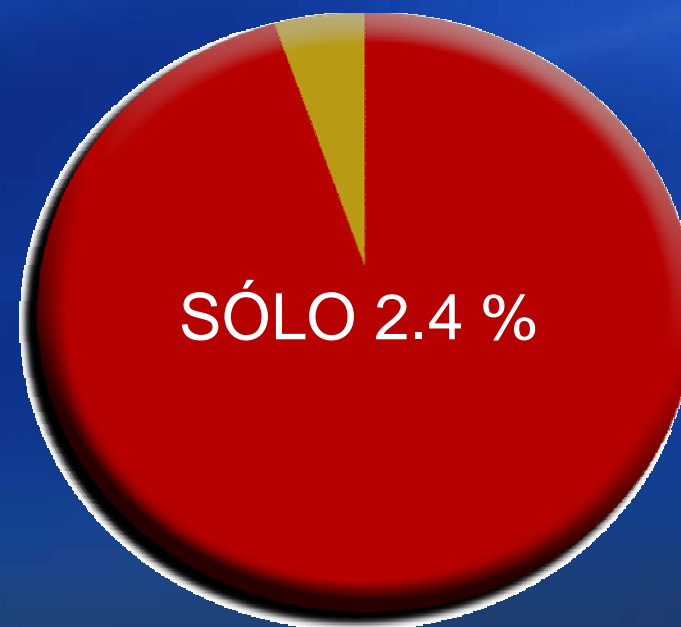
## Asthma control in Latin America: the Asthma Insights and Reality in Latin America (AIRLA) survey

Hugo Neffen,<sup>1</sup> Carlos Fritscher,<sup>2</sup> Francisco Cuevas Schacht,<sup>3</sup>  
Gur Levy,<sup>4</sup> Pascual Chiarella,<sup>5</sup> Joan B. Soriano,<sup>6</sup> and Daniel Mechali,<sup>7</sup>  
on behalf of the AIRLA Survey Group

- Enteropathogens in fecal and rectal specimens from childhood diarrhea in Trinidad
- Costos económicos de las neumonías en niños colombianos
- Inquérito de cobertura vacinal
- Asthma control in Latin America

### Temas de actualidad / Current topics

- Consecuencias de las reformas neoliberales del sector de la salud
- Las reformas de salud neoliberales en América Latina vistas mediante dos estudios de caso

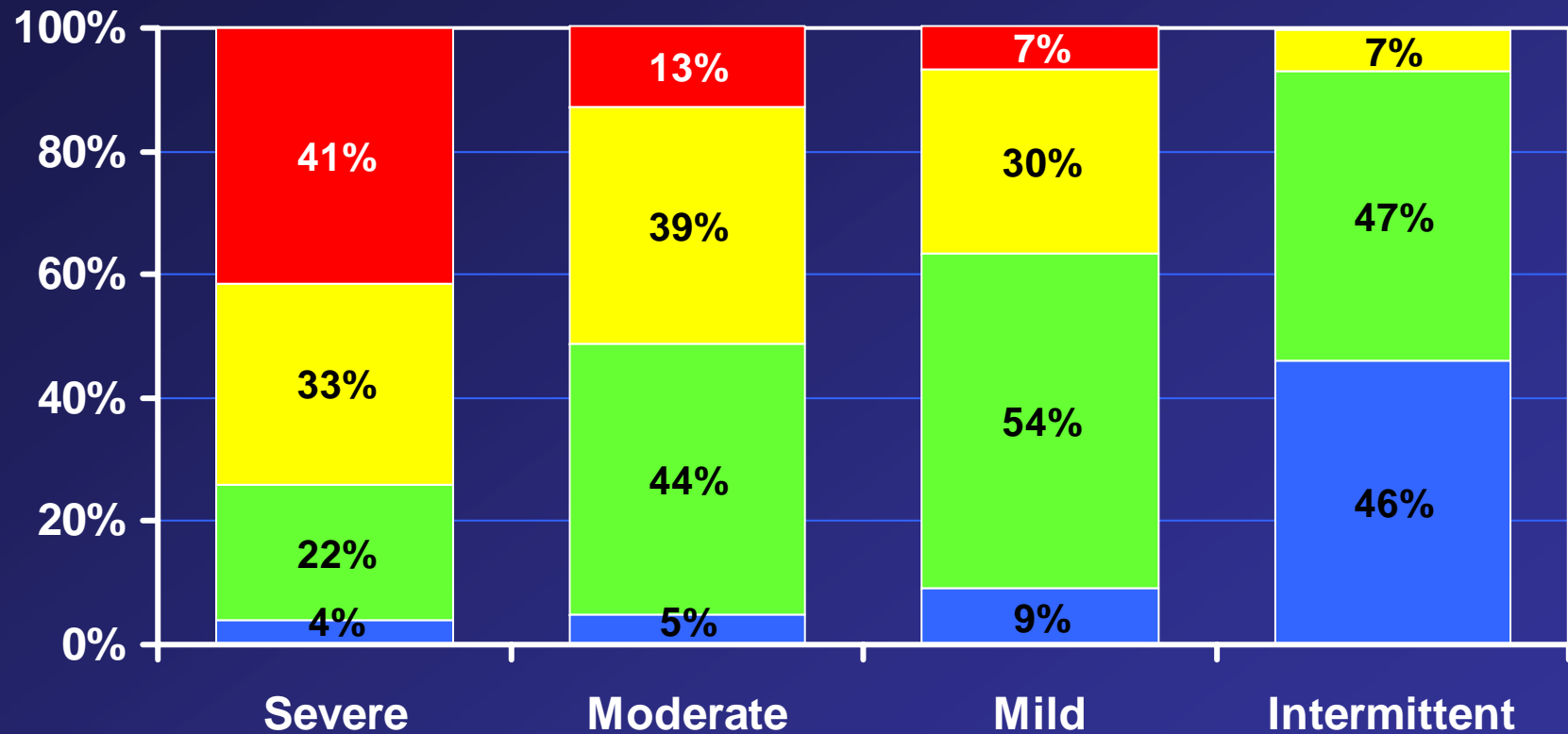


**Figure 1.**

**Study Design for Asthma Insights and Reality in Latin America**

<b>POPULATION</b>	<b>Sampling Frame</b>	<b>Interview Length</b>
Adults with asthma and parents of children (under 16) with asthma (physician diagnosed and past year medication or asthma attacks)	Telephone* and in-person# screening of national or major city sample of households	24 to 51 minutes
<b>COUNTRY</b>	<b>Number of Households Screened</b>	<b>Completed Sample</b>
Argentina	12,504*	402
Brazil	6,111*	412
Chile	2,552*	100
Colombia	1,515#	106
Costa Rica	2,524#	111
Ecuador	2,500#	90
Mexico	10,013#	439
Paraguay	2,509#	110
Peru	1,303#	100
Uruguay	2,507#	215
Venezuela	2,237#	99
<b>TOTAL</b>	<b>46,275</b>	<b>2,184</b>

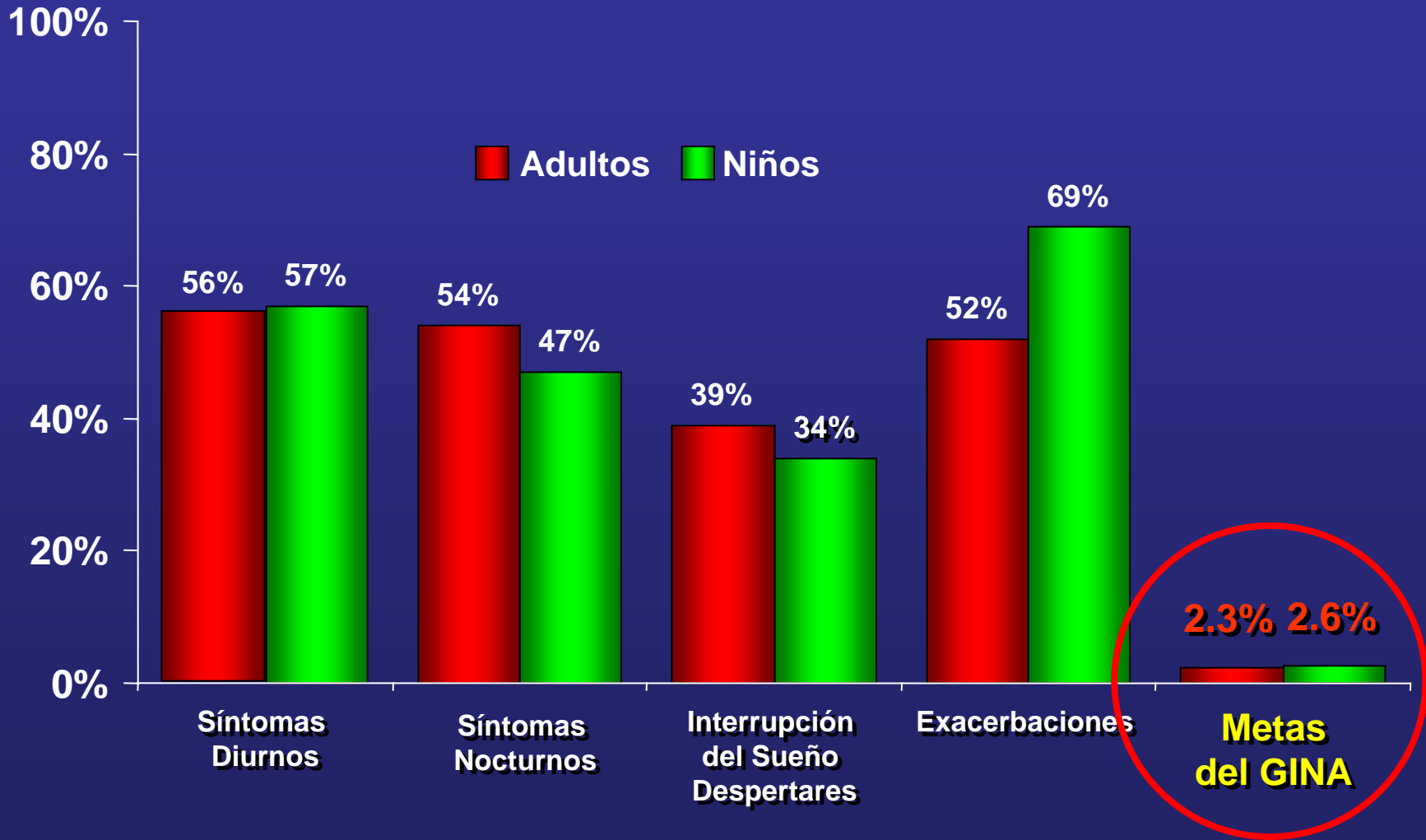
# Objective Severity of Asthma Symptoms by Subjective Perception of Control



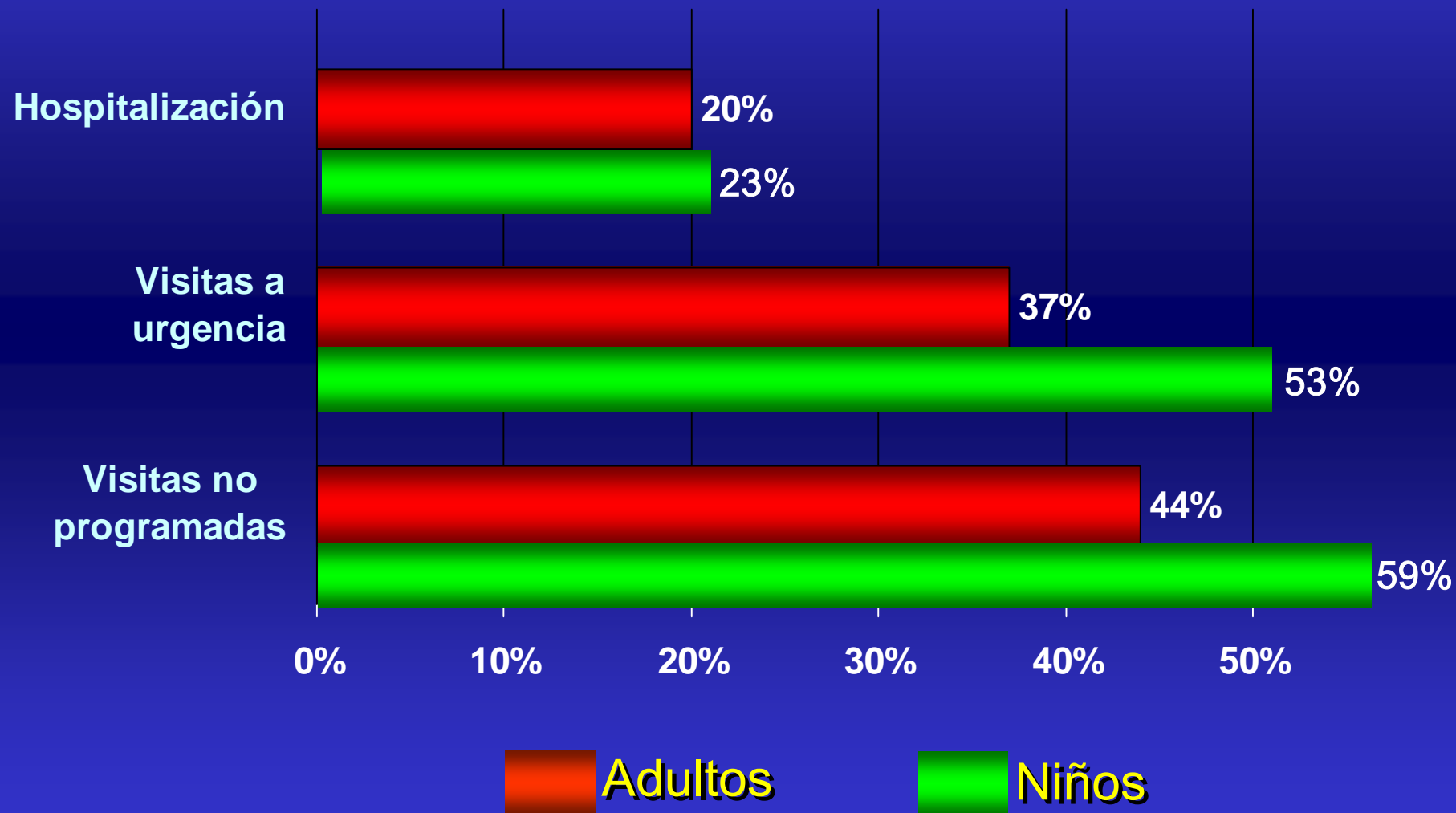
Legend:  
■ Completely controlled (blue)  
■ Well controlled (green)  
■ Somewhat controlled (yellow)  
■ Poorly/Not at all (red)



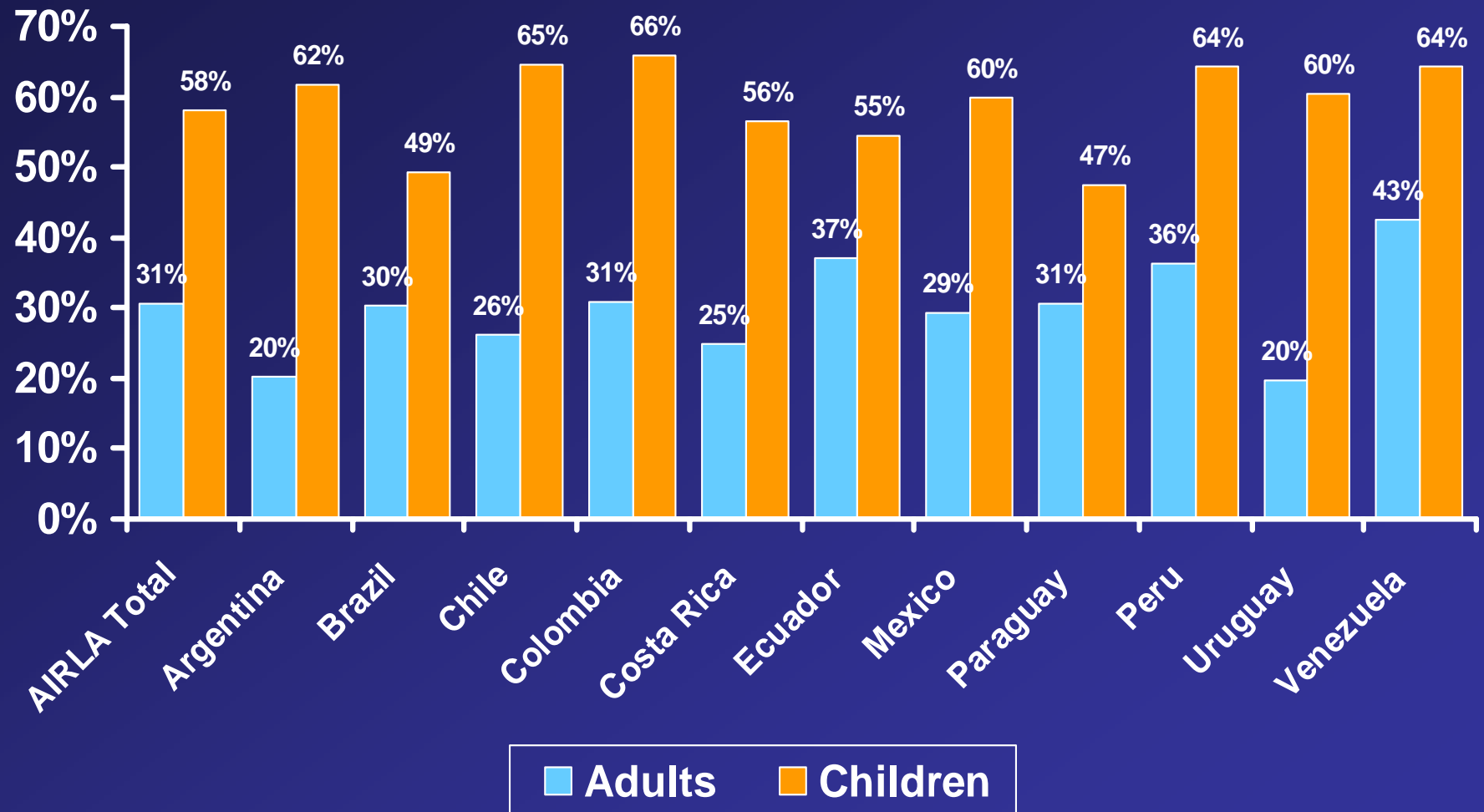
# ¿Estamos alcanzando las metas del GINA en América Latina?



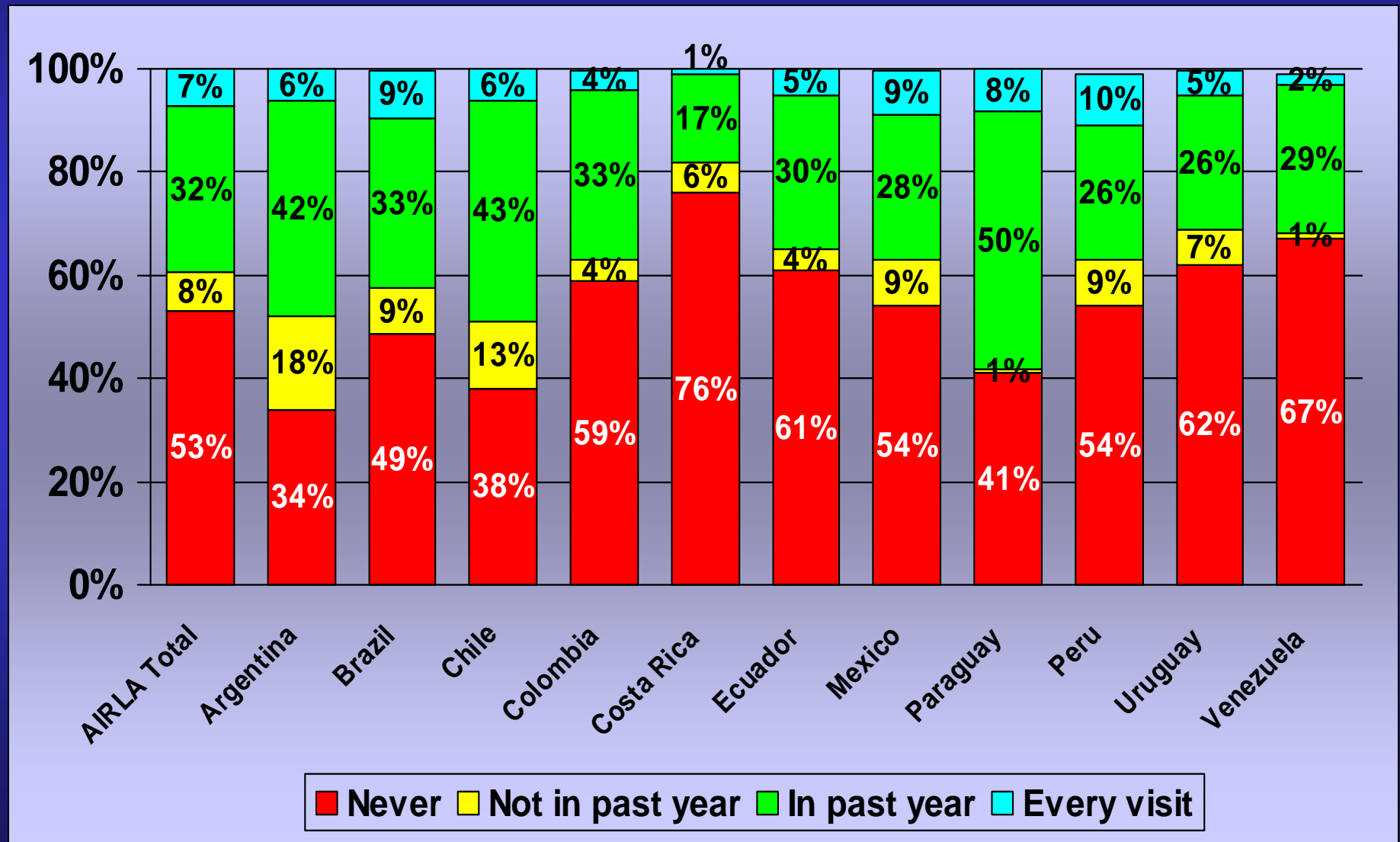
## Visita al Hospital o a emergencia debido al asma en LA en el ultimo año en adultos y en niños( A.I.R.L.A)



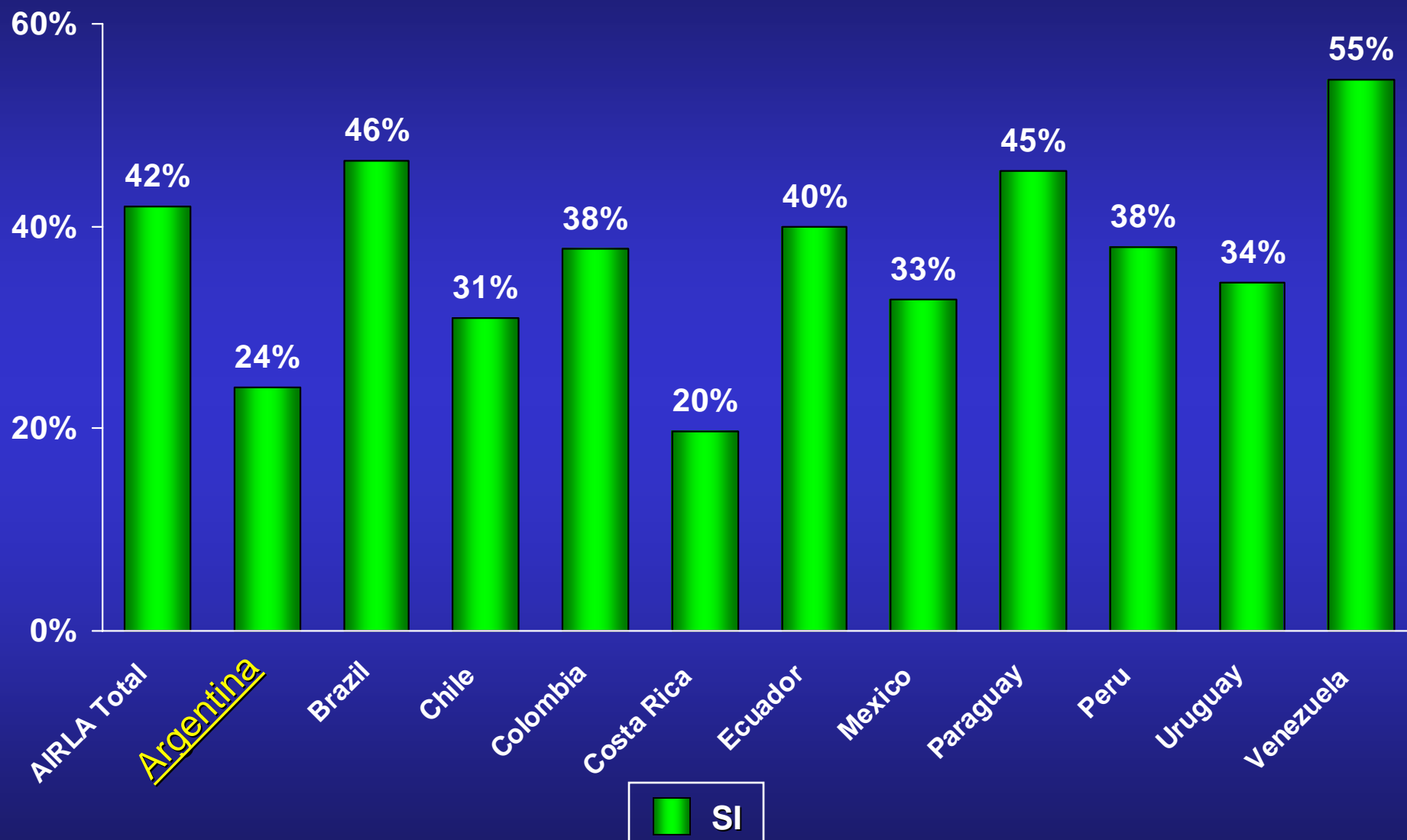
# Work or school absence in the past year due to asthma



# Lung function test in last year



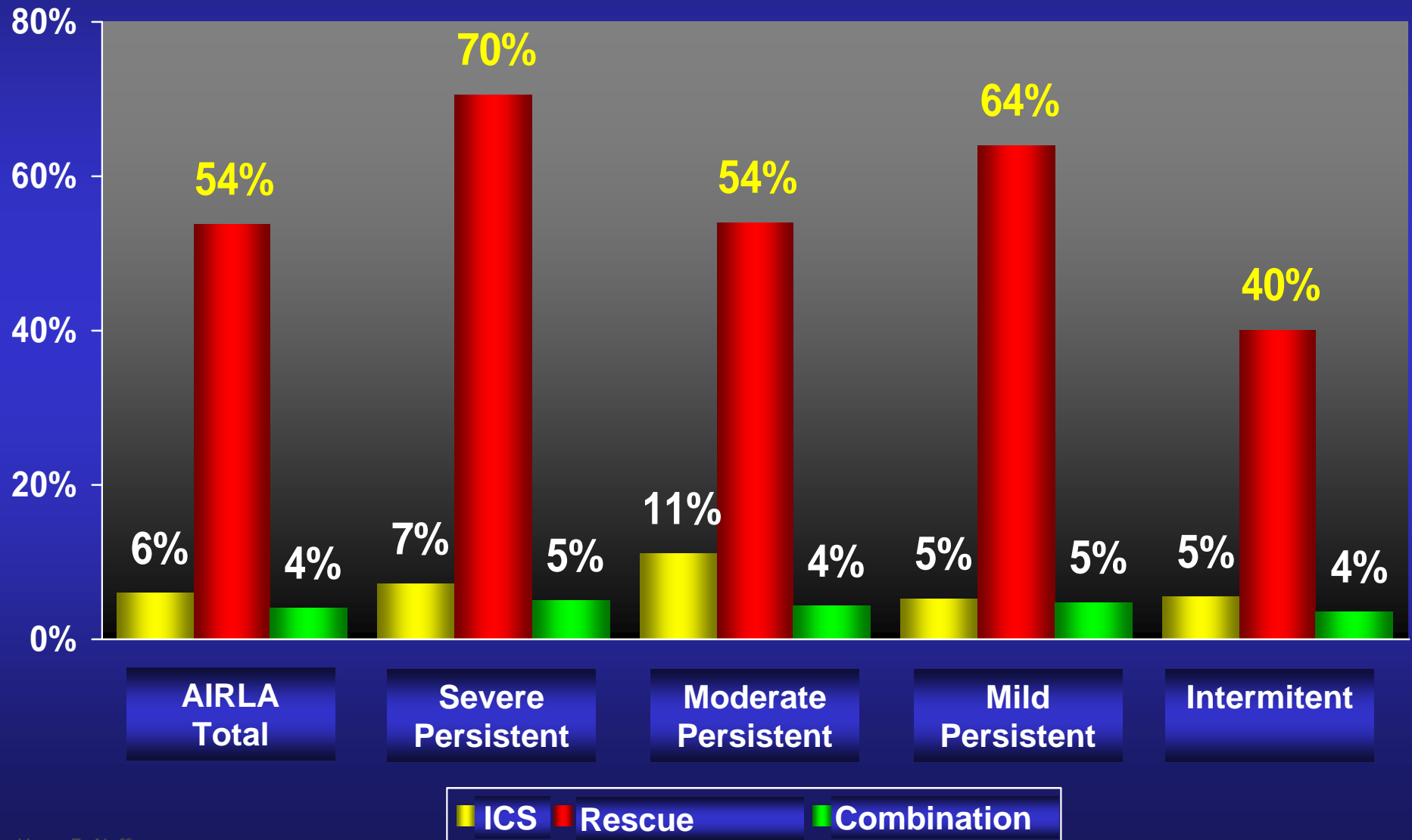
# Plan de indicación escrito por el médico



Q37a. Su médico / el de su hijo le desarrolló un plan de acción por escrito para el manejo de su asma?

Base: Todos los pacientes

# Controllers vs. Rescue medication



# Latin America does not meet GINA asthma goals

GINA Treatment Guidelines	AIRLA Findings
<ul style="list-style-type: none"> <li>Minimum (ideally no) chronic symptoms, including nocturnal symptoms</li> </ul>	<ul style="list-style-type: none"> <li>63% reported severe chronic symptoms</li> <li>54% reported persistent symptoms</li> </ul>
<ul style="list-style-type: none"> <li>Minimal (infrequent) episodes</li> </ul>	<ul style="list-style-type: none"> <li>56% reported daytime symptoms,</li> <li>52% experienced sleep disturbances</li> <li>40% had symptoms during exercise</li> </ul>
<ul style="list-style-type: none"> <li>No emergency visits</li> </ul>	<ul style="list-style-type: none"> <li>58% of patients had emergency visits</li> </ul>
<ul style="list-style-type: none"> <li>Minimal need for prn beta<sub>2</sub>-agonist</li> </ul>	<ul style="list-style-type: none"> <li>70% used quick-relief medication</li> </ul>
<ul style="list-style-type: none"> <li>No limitations on activities including exercise</li> </ul>	<ul style="list-style-type: none"> <li>75% of patients reported limitation in activities including exercise</li> <li>31% of adults missed work</li> <li>58% of children missed school</li> </ul>
<ul style="list-style-type: none"> <li>Have normal or near-normal lung function (PEF variability &lt;20%)</li> </ul>	<ul style="list-style-type: none"> <li>53% of patient never received a test</li> <li>3% have peak flow meter</li> </ul>

❖ **AIRLA : 2003**

❖ **AIM : 2011**

❖ **Impacto economico del asma  
no controlado**

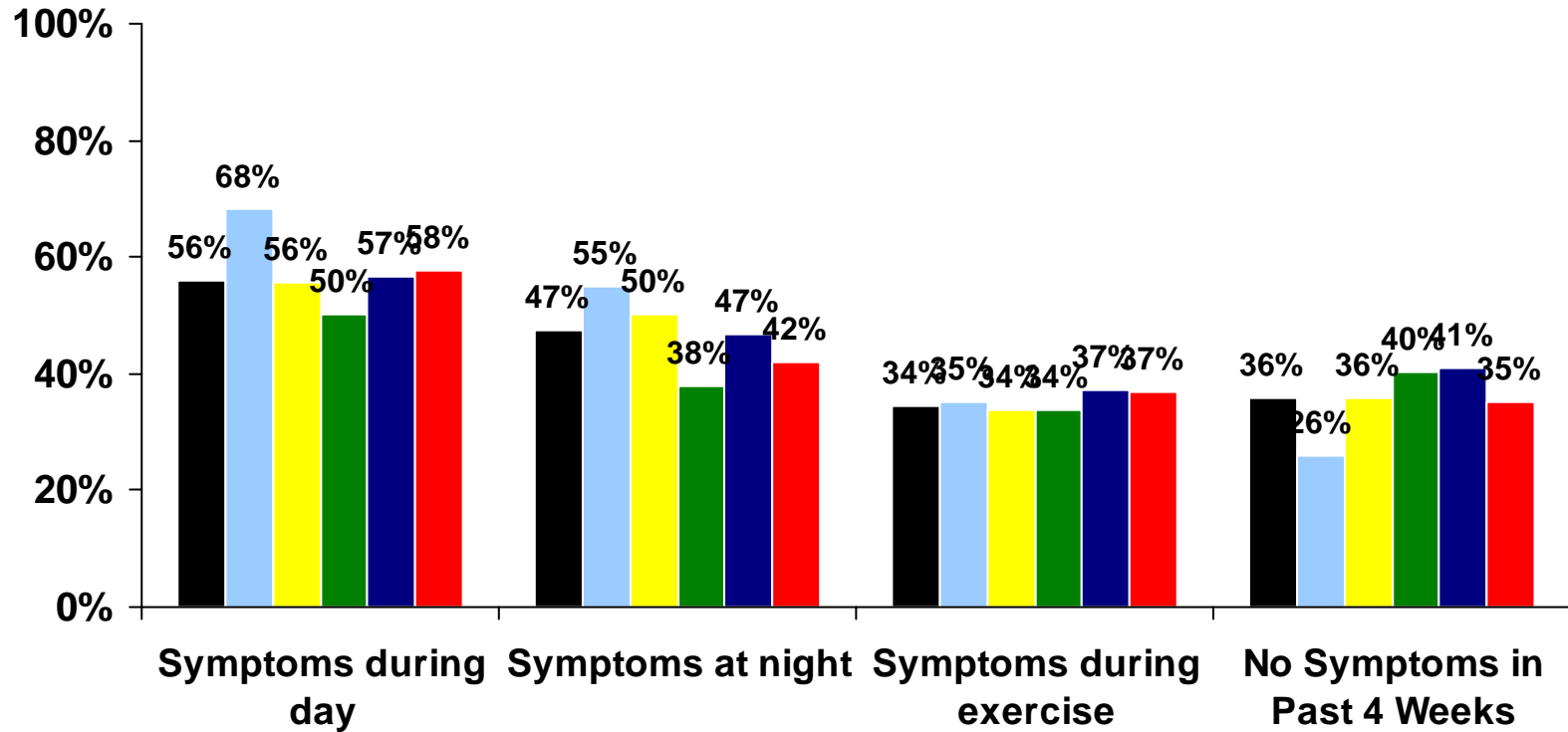
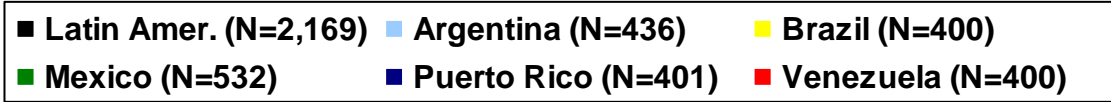


# Study Design LA AIM: 2011

Population	Sampling Frame	Interview Length
Adults and parents of adolescents (age 12-17 years) with asthma (physician diagnosed and past-year medication or asthma attacks)	Face-to-face interview screening of national sample of households	Mean: 35 minutes
Country	Number of Households Screened	Completed Sample
Argentina	16,321	436
Brazil	4,545	400
Mexico	24,495	532
Puerto Rico	2,193	401
Venezuela	3,654	400
<b>LA AIM TOTAL</b>	<b>51,208</b>	<b>2,169</b>



# Symptoms in Past 4 Weeks



Q27a. In the past four weeks, (have you/has your child) had a cough, or wheezing, or shortness of breath, or chest tightness during the day?

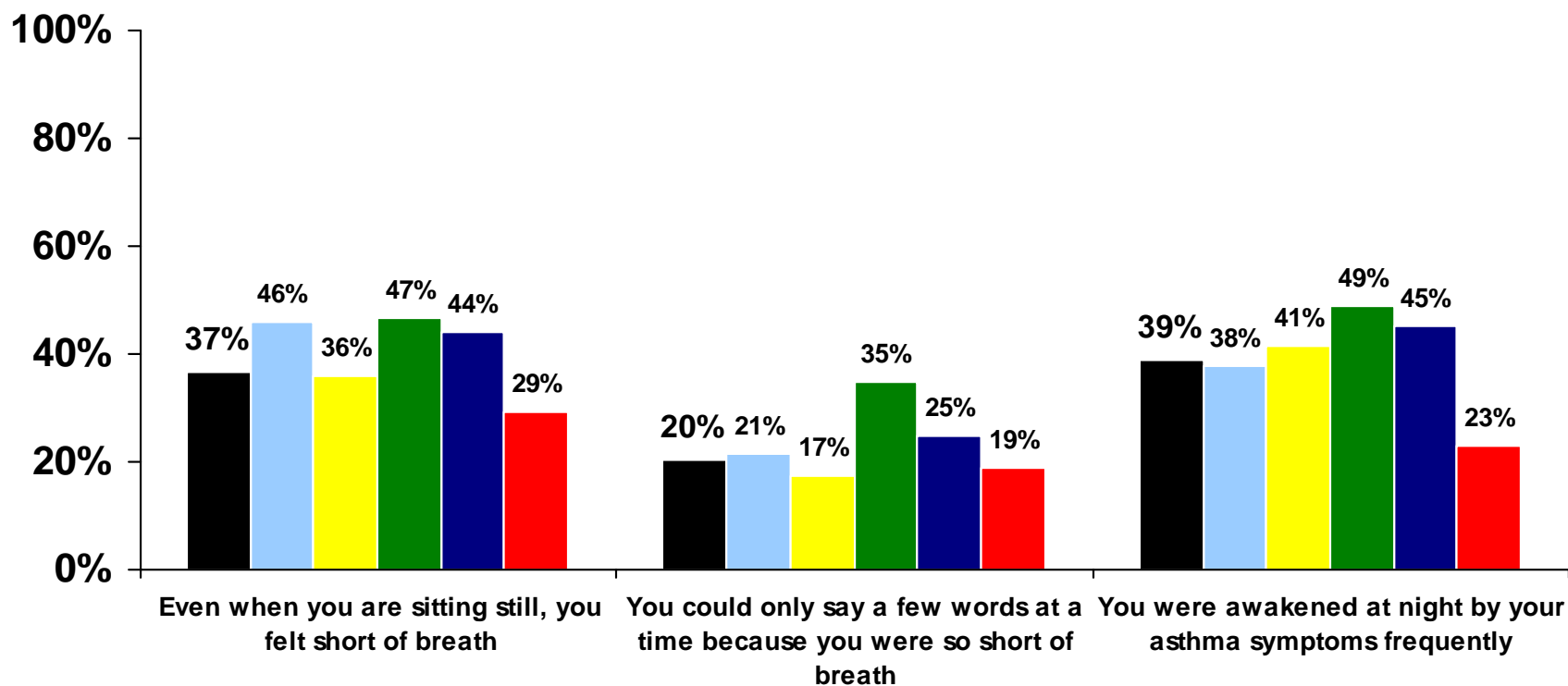
Q28a. In the past four weeks, (have you/has your child) been awakened by a cough, or wheezing, or shortness of breath, or chest tightness during the night?

Q29a. In the past four weeks, (have you/has your child) had a cough, or wheezing, or shortness of breath, or chest tightness during exercise, play or physical exertion?

Base: All respondents



# Had an Asthma Episode in Past Year When...



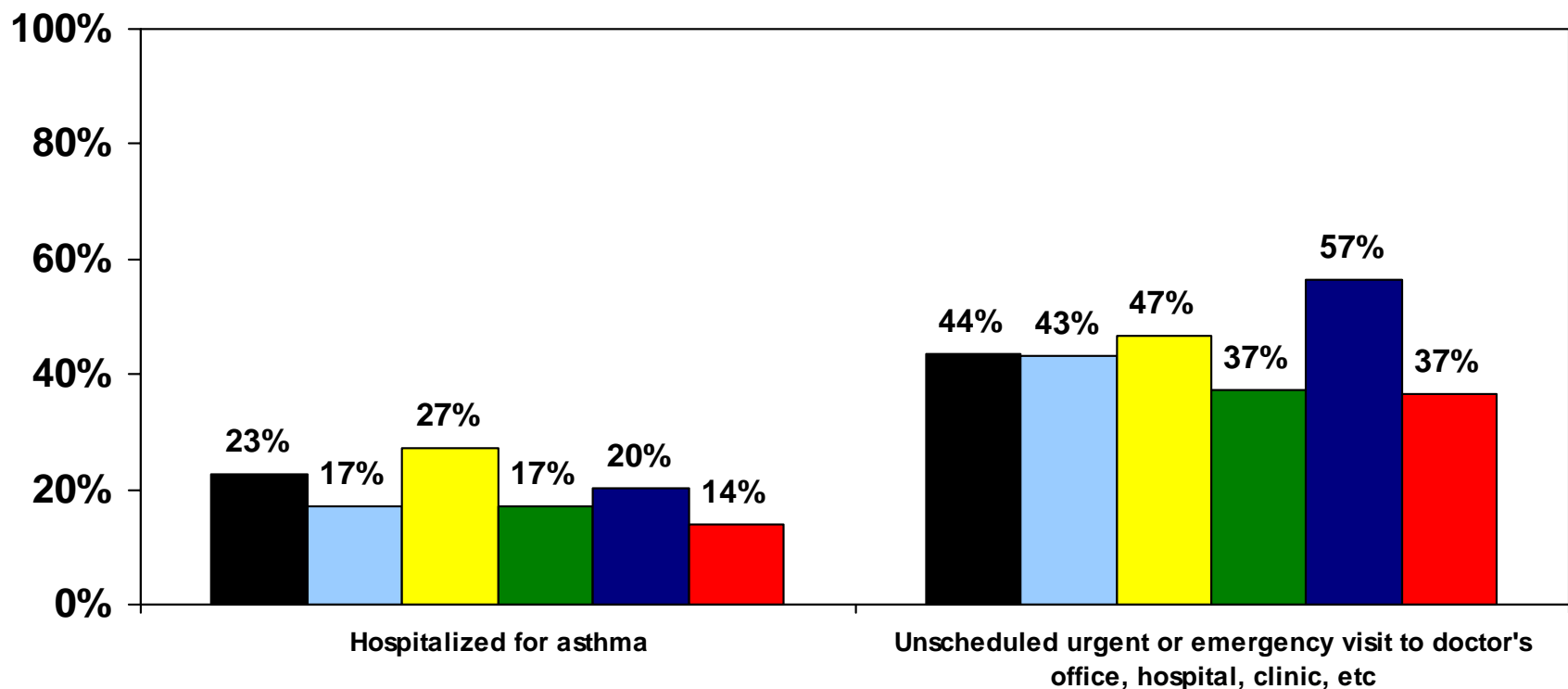
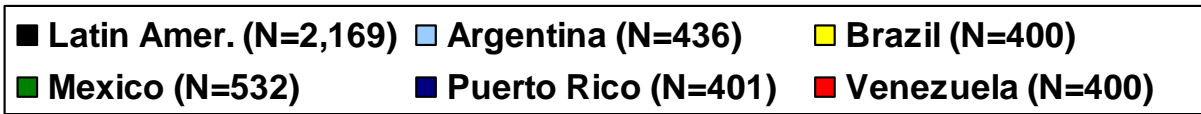
Q17a. During the past 12 months (have you/has your child) had an asthma episode when...

MULTIPLE RECORD

Base: All respondents



# Acute Treatment for Asthma in the Past Year

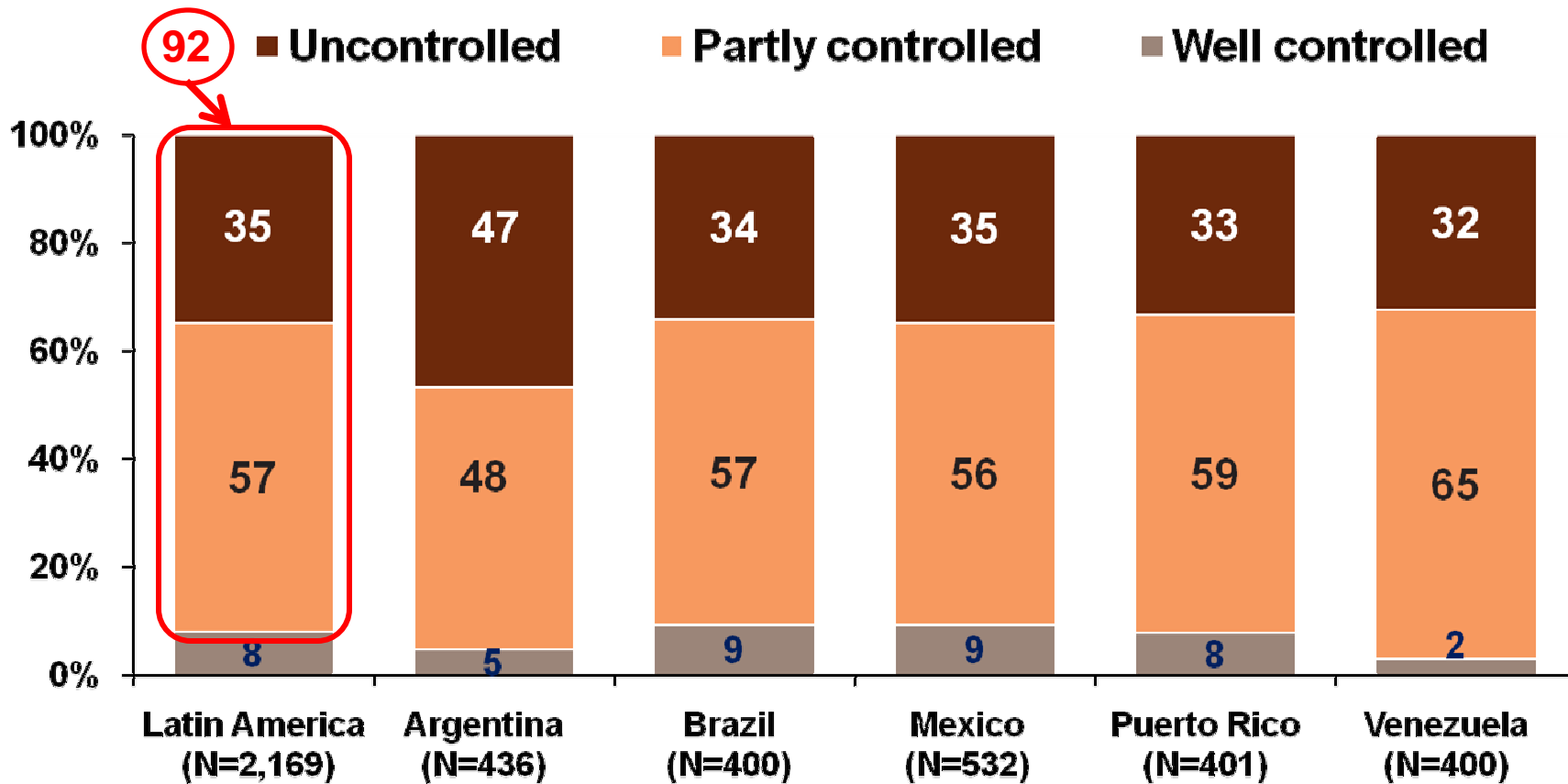


Q21a. (Have you/Has your child) been hospitalized for asthma in the past 12 months?

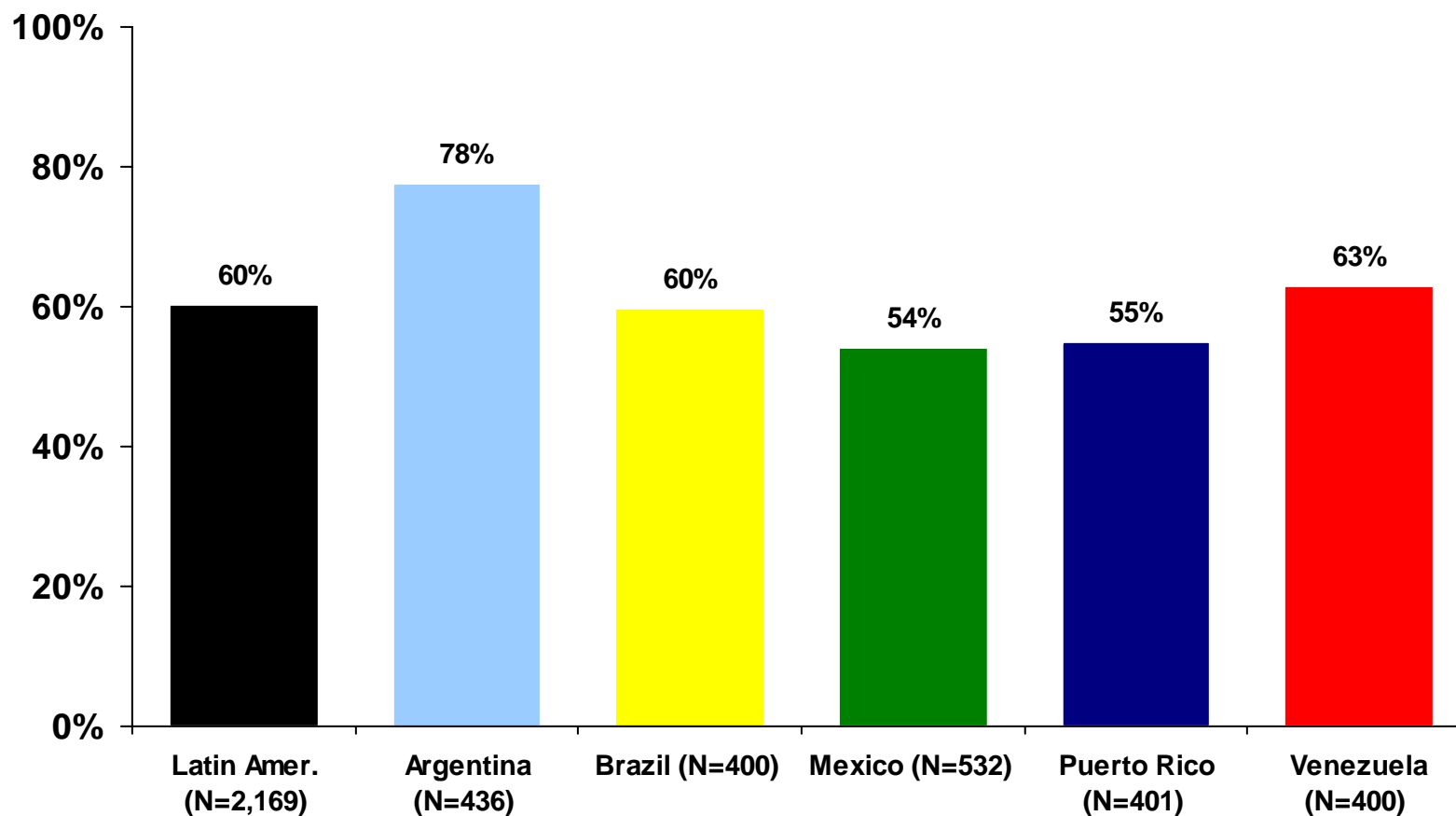
Q22a. Has (your/your child's) asthma caused any unscheduled urgent or emergency visits to a doctor's office, hospital, clinic or somewhere else in the past 12 months?



# Symptom Control Classification of Asthma Patients (GINA 2009)



# Perceived Asthma Control in the Past 4 Weeks: Completely or Well Controlled

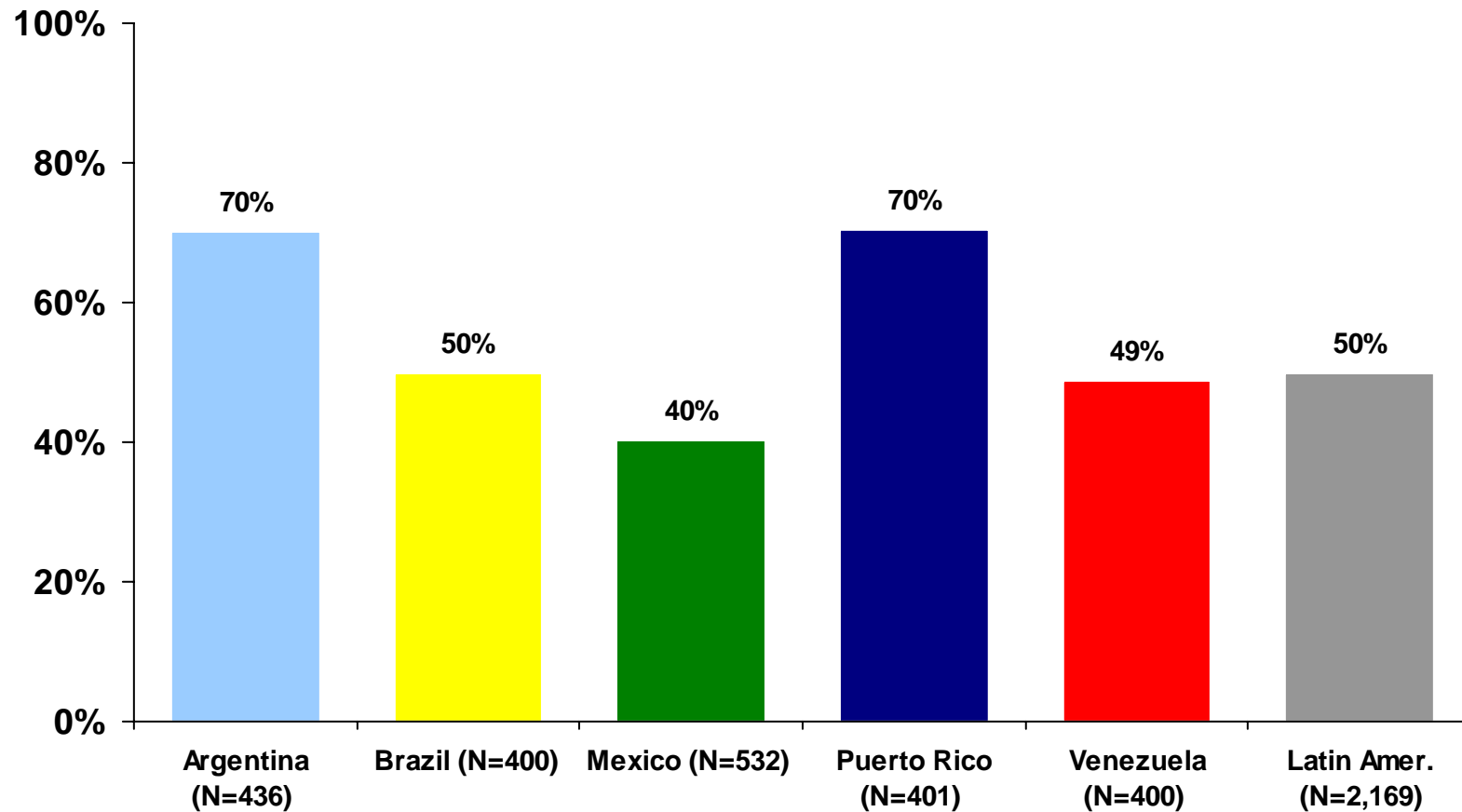


Q30. Overall, how well would you say that (your/your child's) asthma has been controlled in the past four weeks? Would you say it was completely controlled, well controlled, somewhat controlled, poorly controlled, or not controlled at all?

Base: All respondents



# Doctor Ever Give a Lung Function Test

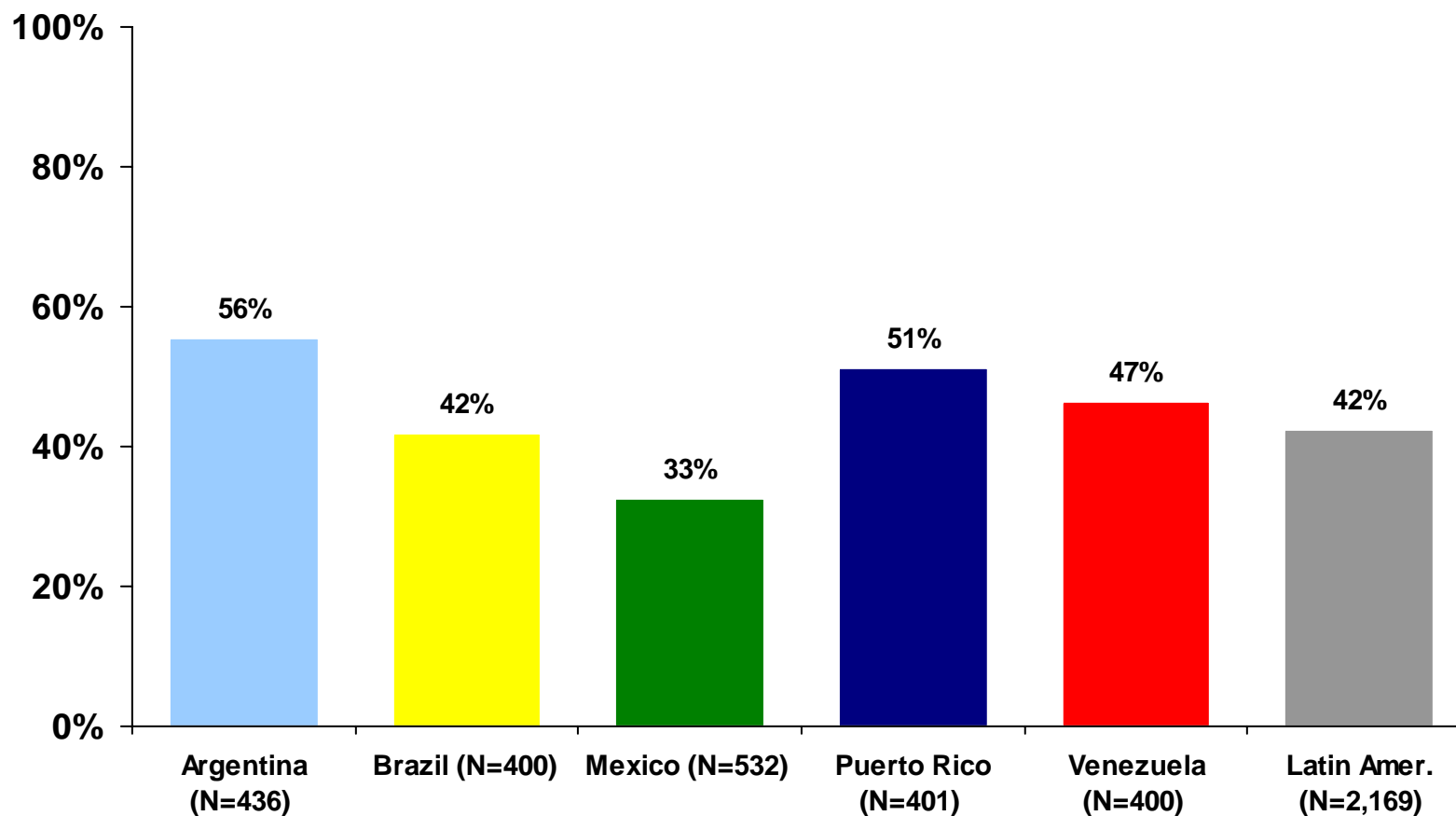


Q42a. A pulmonary function test measures how much and how quickly you can move air out of your lungs. For this test, you breathe into a mouthpiece attached to a recording device. Has (your/your child's) doctor ever given (you/your child) a pulmonary function test?

Base: All respondents



# Doctor-developed Written Action Plan for Asthma Treatment



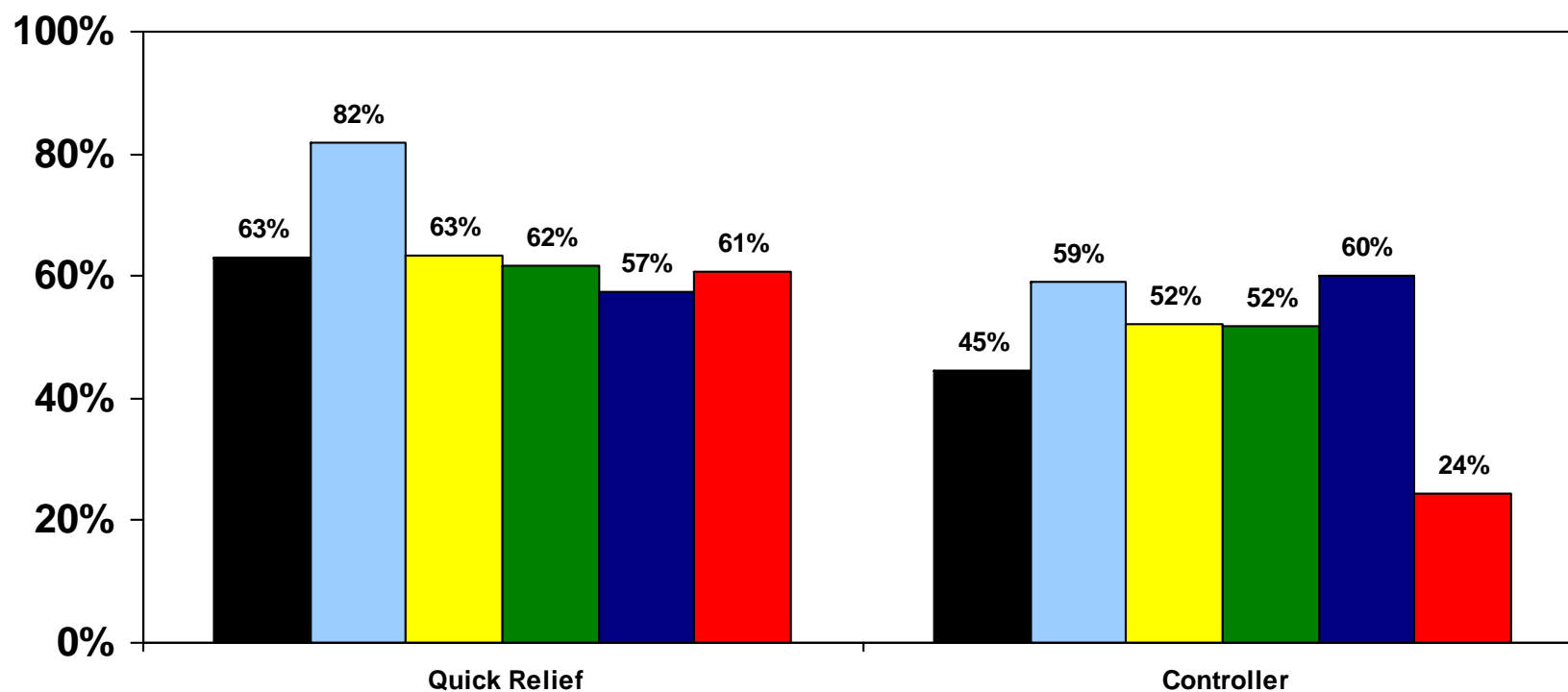
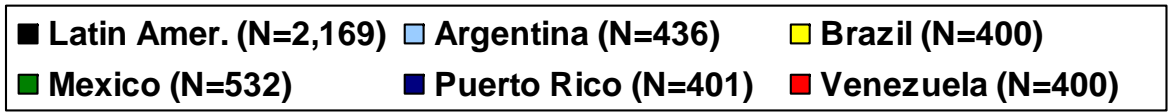
Q47a. Has (your/your child's) doctor or healthcare provider developed a written action plan for (your/your child's) asthma treatment?

Base: All respondents





# Medication Use in the Past 4 Weeks



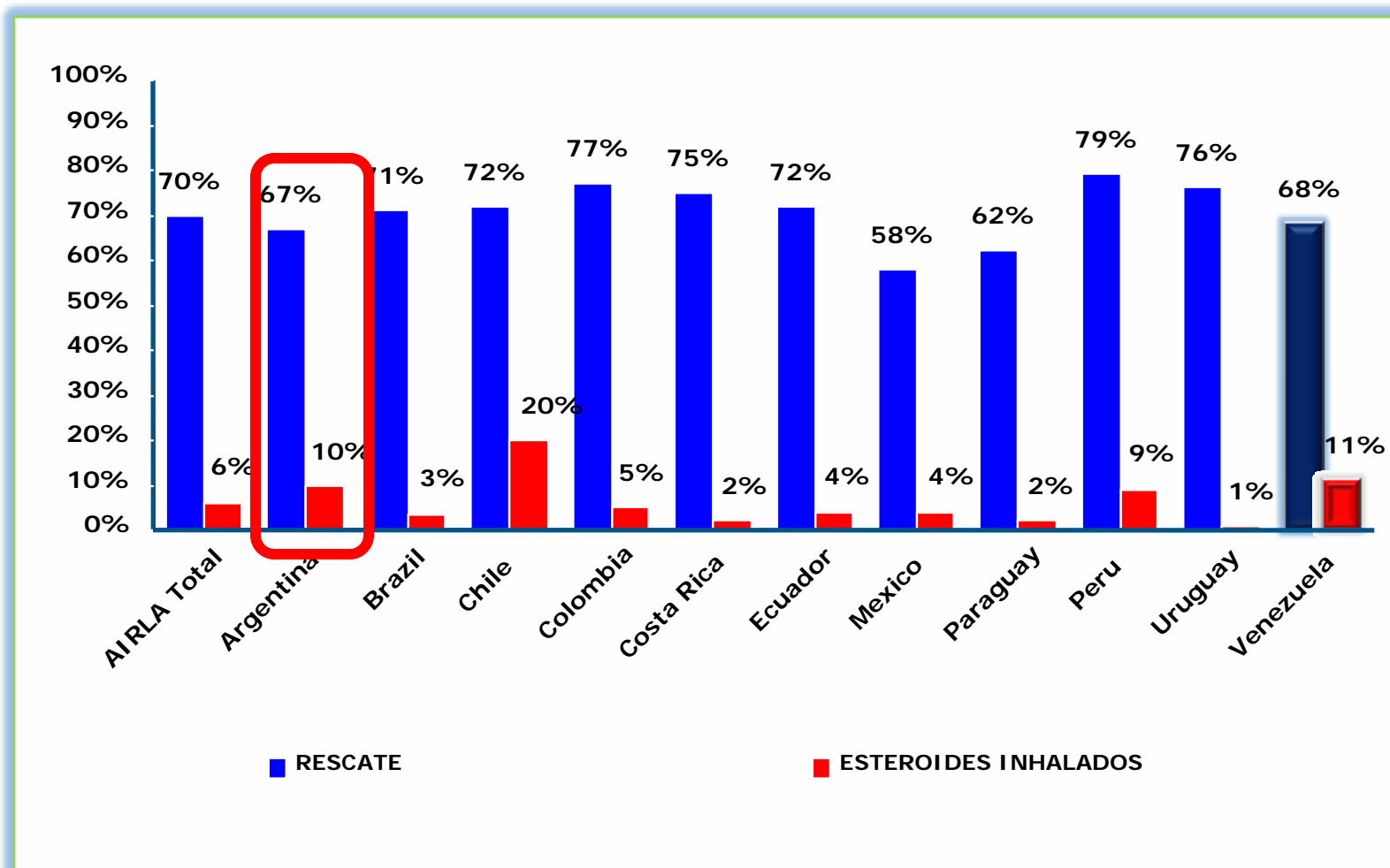
Q48a. In the past 4 weeks, (have you/has your child) used any medicine to give (you/your child) quick relief or rescue from asthma symptoms?

Q49a. In the past four weeks, (have you/has your child) used any medicine for long term control or prevention of (your/his/her) asthma?

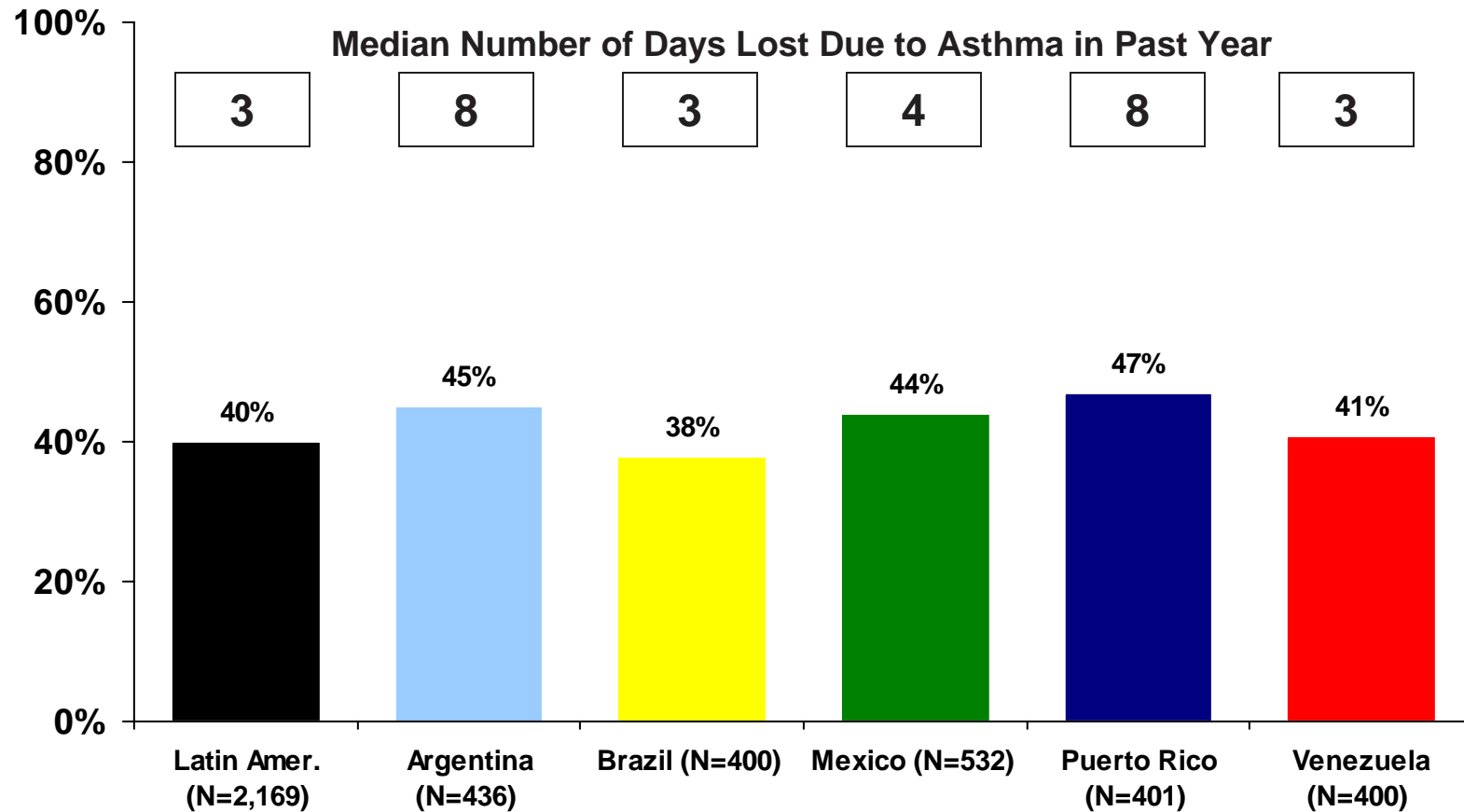
Base: All respondents



# USO DE MEDICACION CONTROLADORA Y DE RESCATE EN LOS ULTIMAS 4 SEMANAS(AIRLA9



# Missed Work or School in Past Year Due to Asthma



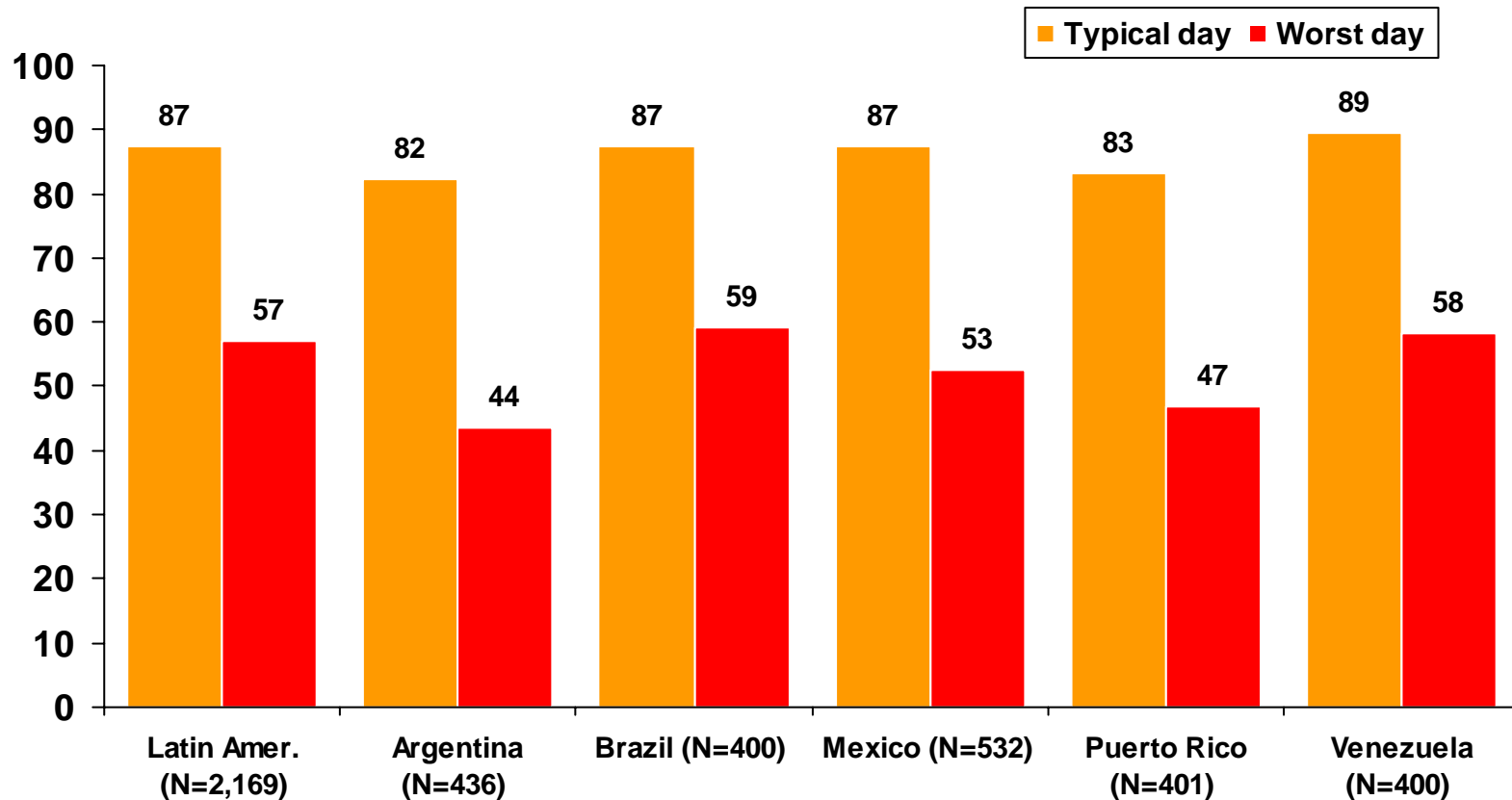
Q33a. Has (your/your child's) asthma caused (you/your child) to miss work or school in the past year?

Q33b. How many work or school days (have you/has you child) lost in the past year as a result of asthma?

Base: All respondents



# Impact of Asthma on Productivity (Mean)



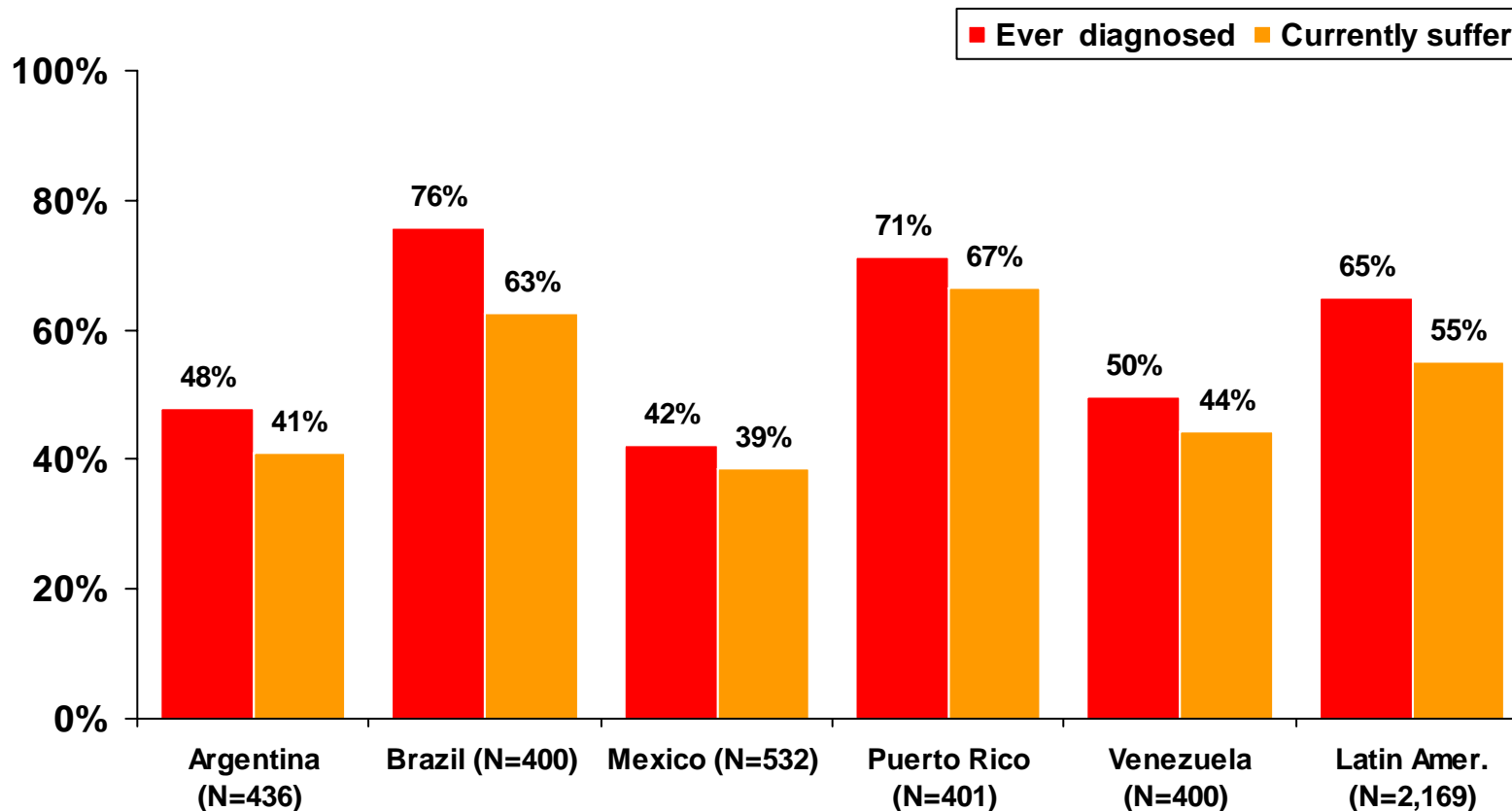
Q34. Thinking about productivity on a scale of 0 to 100, where 100 means 100% productivity, where would you rank (your/your child's) productivity on a typical day?

Q35. Where would you rank (your/your child's) productivity on the same scale of 0 to 100, at times of the year when (your/your child's) asthma was at its worst?

Base: All respondents



# Has Nasal Allergies Ever or Current



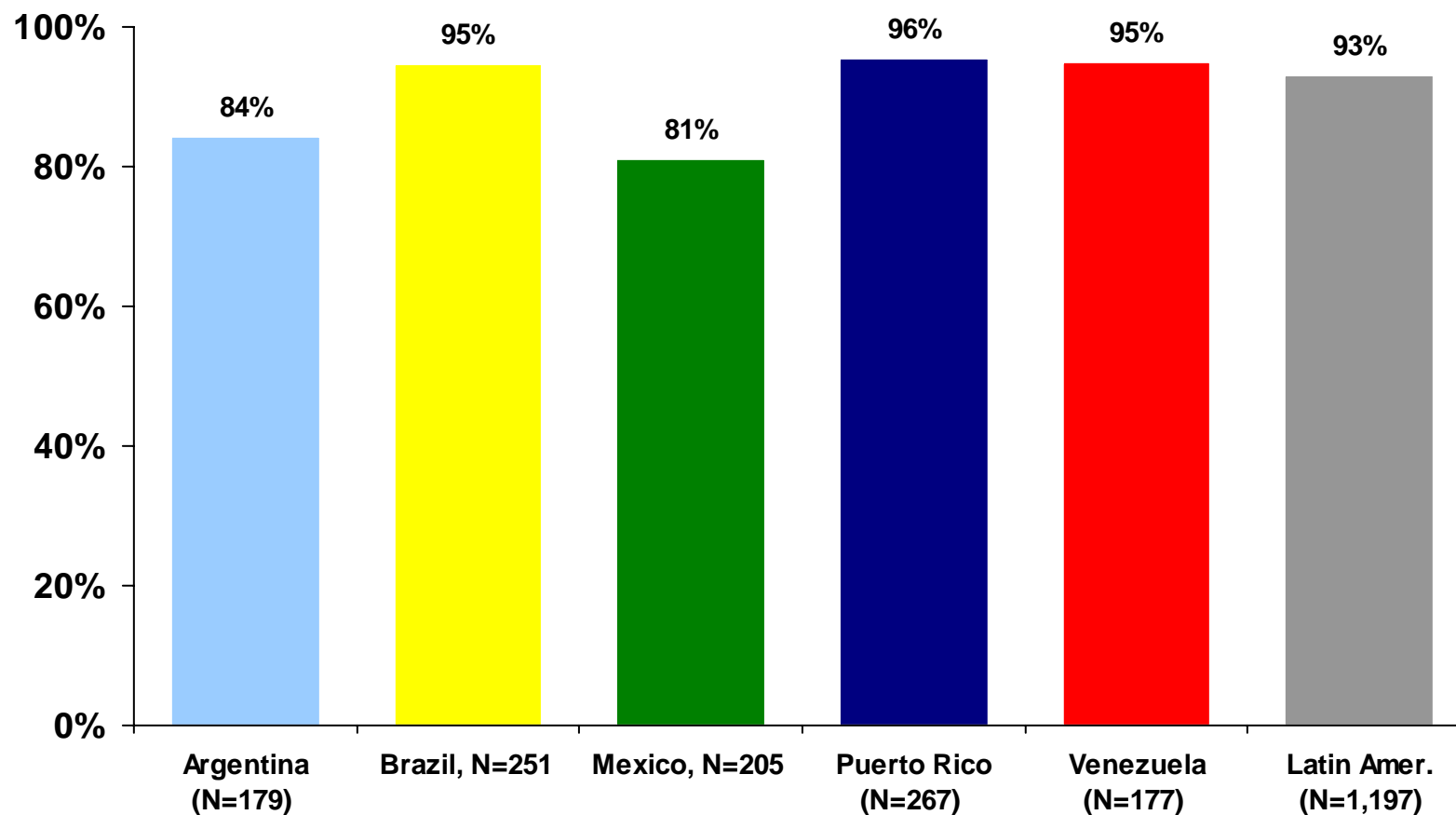
Q3a. Has a doctor ever diagnosed (you/your child) as having nasal allergies, congestion allergies, or rhinitis?

Q3b. (Do you/does your child) still suffer from nasal allergies, congestion allergies, or rhinitis?

Base: All respondents



# Used Medicine for Nasal Allergies

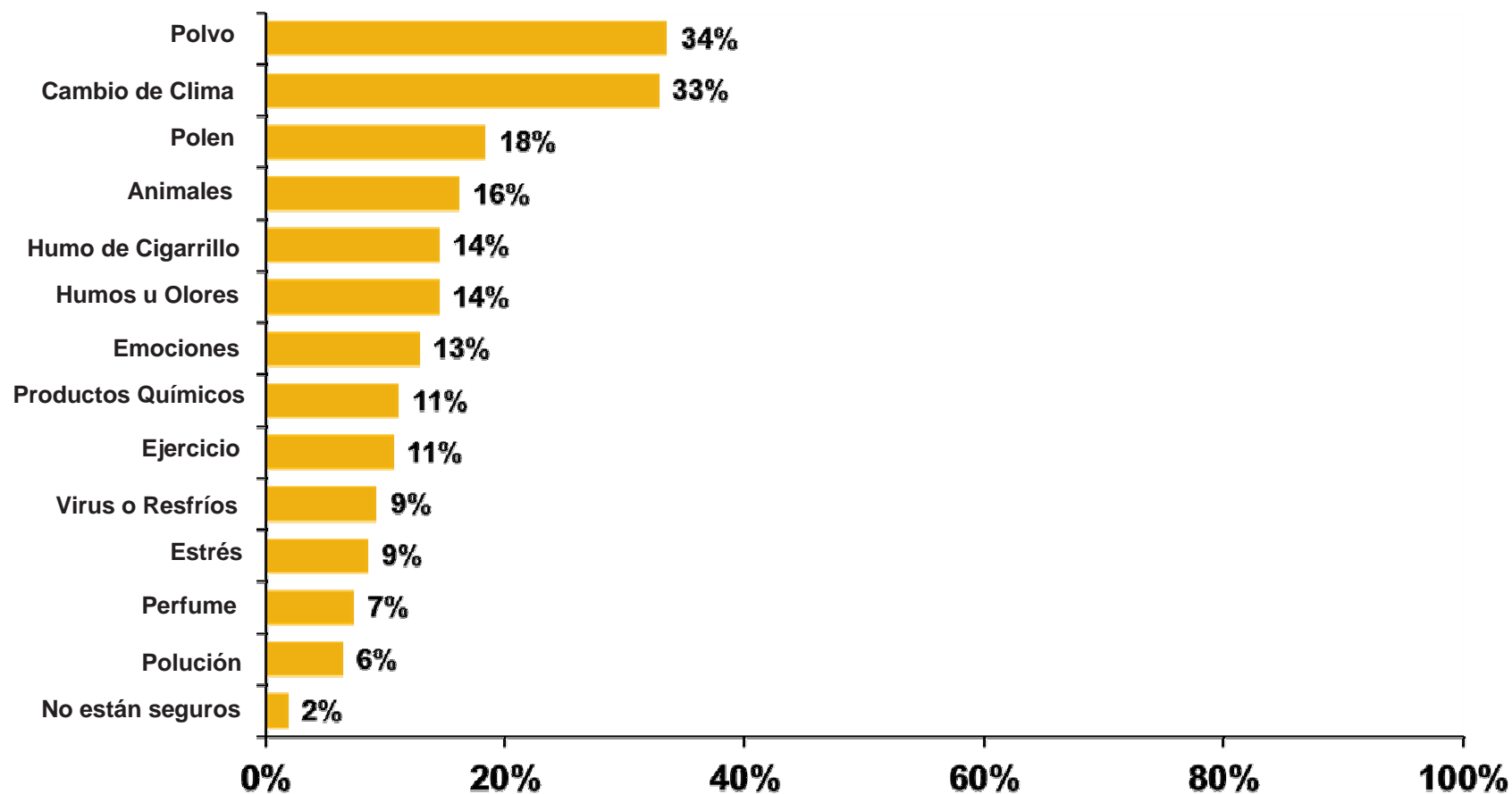


Q3c. (Have you/Has your child) used any medicine for (your/your child's) nasal allergies when (you have/he has/she has) symptoms?

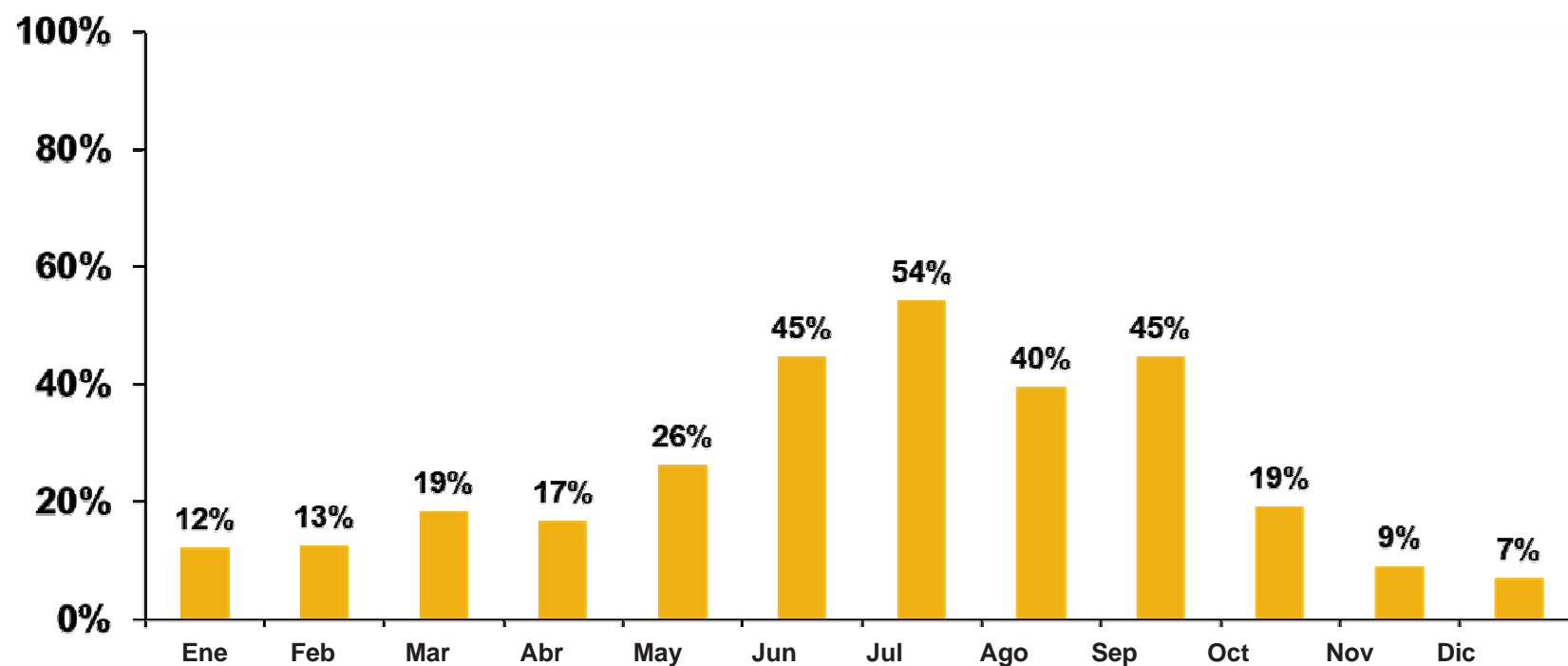
Base: Has current nasal allergies



## Desencadenantes del Asma reportados por los pacientes (espontáneos)

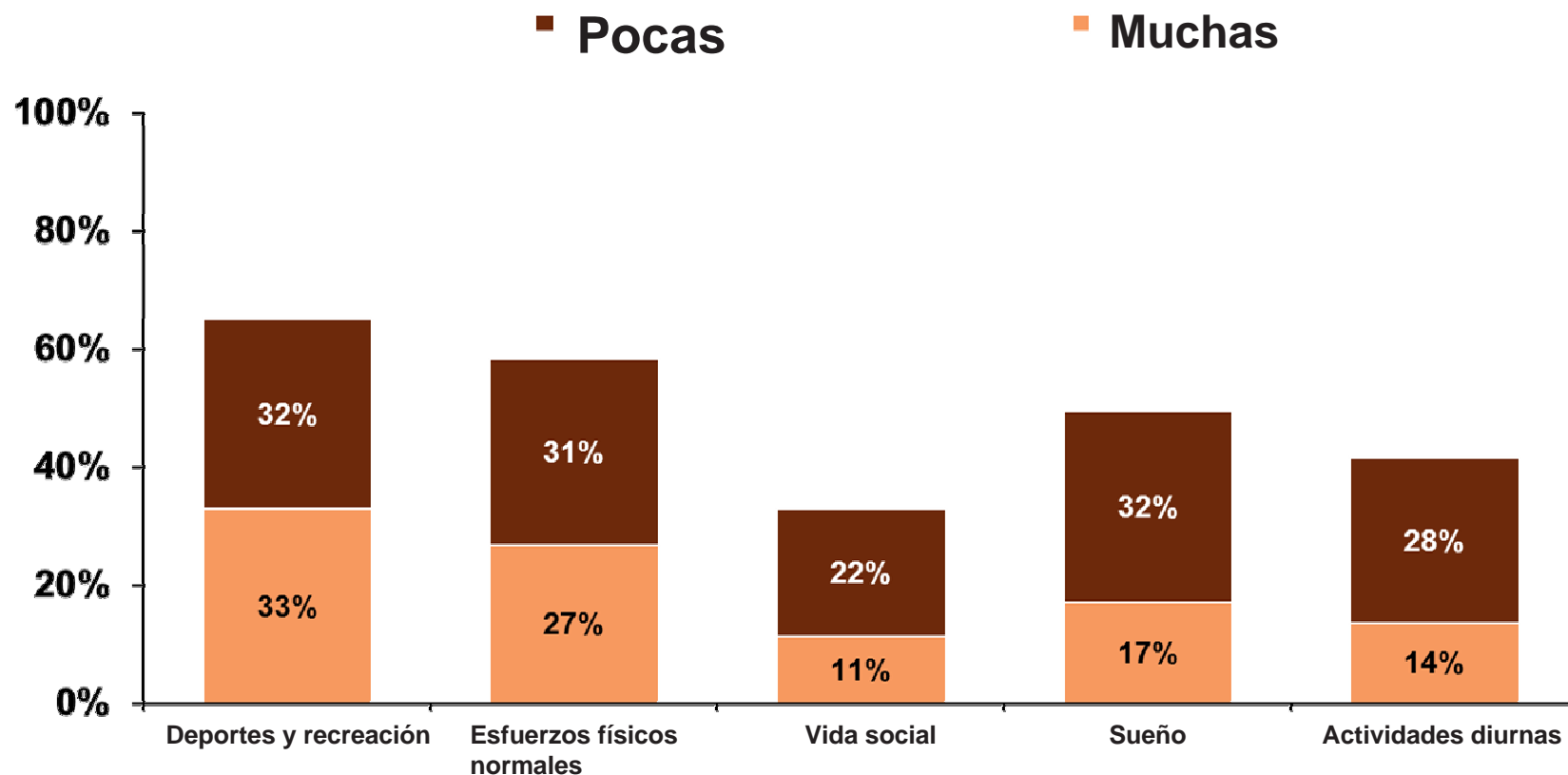


## Meses reportados por el paciente en los cuales los síntomas son más frecuentes o más severos

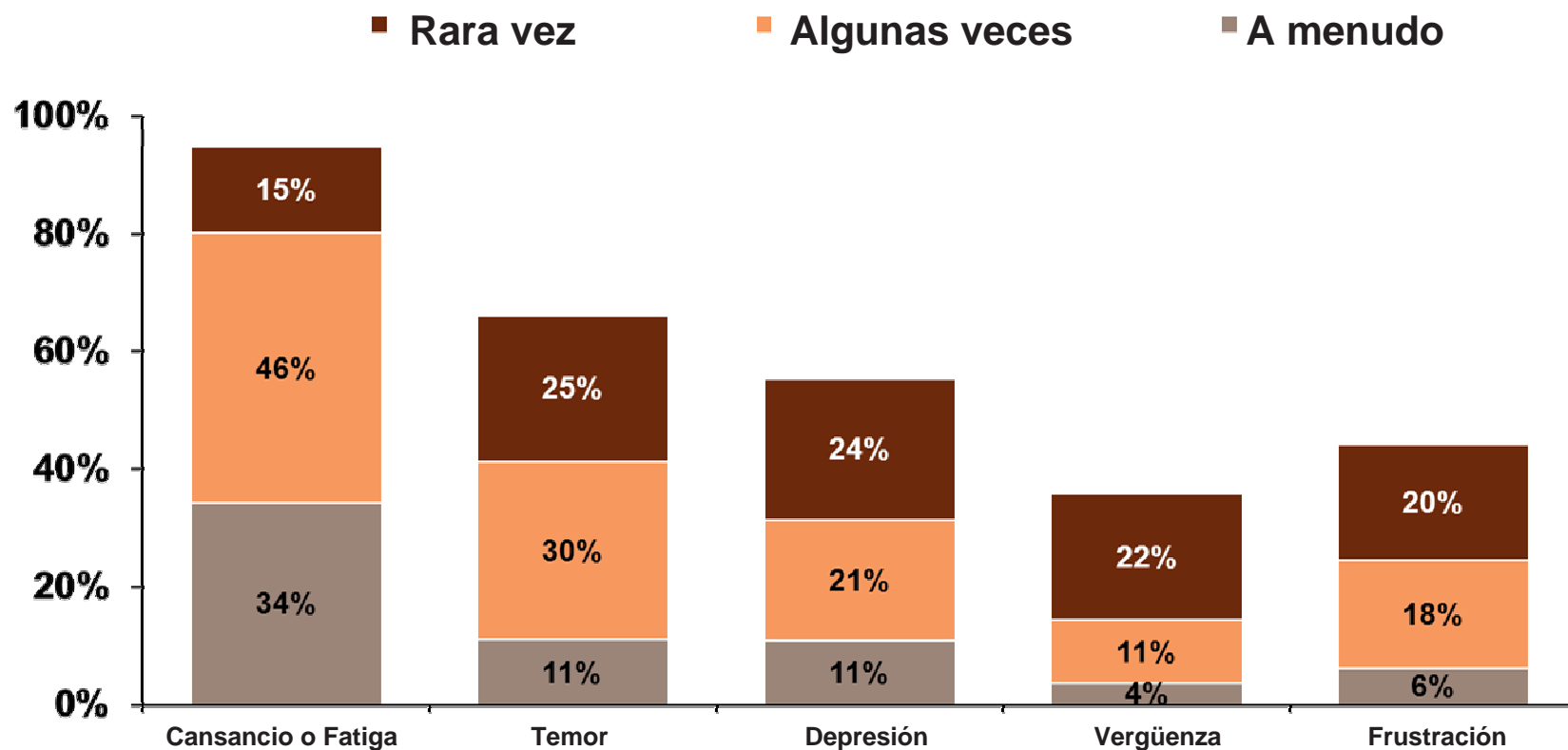




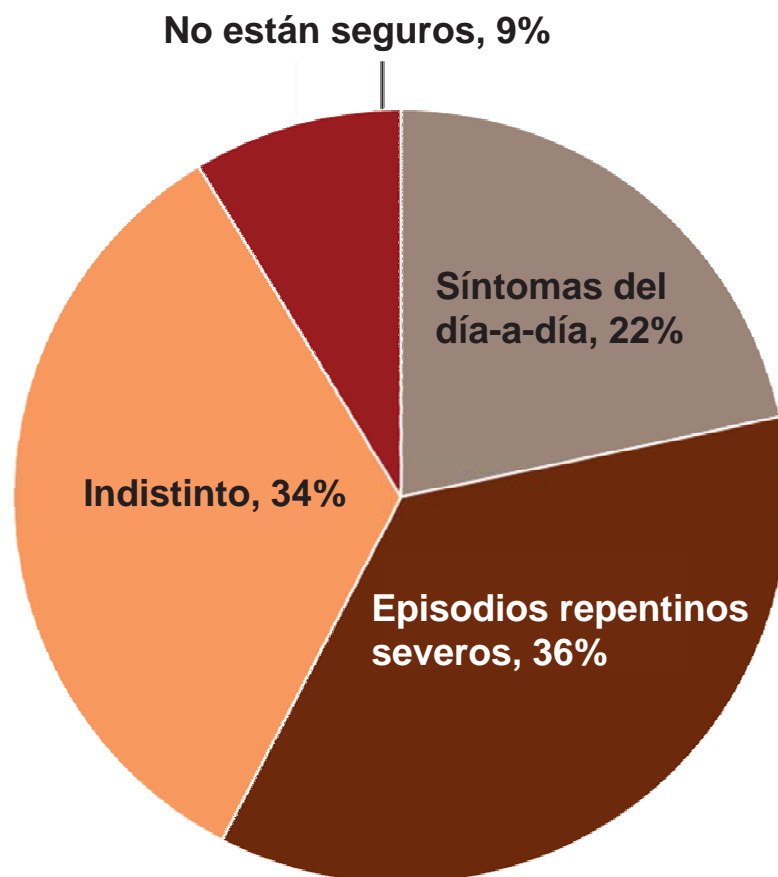
## Limitaciones reportadas por el paciente con respecto a actividades específicas (pocas o muchas)



# Carga emocional del Asma reportada por el paciente



## ¿Qué tiene mayor impacto en la calidad de vida?



❖ **AIRLA : 2003**

❖ **AIM : 2011**

❖ **Impacto economico del asma  
no controlado**

# Costos Directos por Asma Bronquial

- Hospitalización
- Visitas a sales de emergencia
- Costos de atención médica
- Costos de atención paramédica
- Equipamiento médico
- Medicación

# Costos Indirectos

- Ausentismo escolar
- Ausentismo laboral
- Incapacidad
- Retiro anticipado
- Mortalidad
- Calidad de vida

# Costos Intangibles

# The risk of excess healthcare utilization in uncontrolled asthma patients



# **The Burden of Unscheduled Healthcare for Asthma in Latin America**

**Hugo Neffen<sup>1</sup>, Sandra N Gonzalez<sup>2</sup>, Carlos C  
Fritscher<sup>3</sup>, Claudia Dovali<sup>4</sup>, Angela E Williams<sup>5</sup>**

**Journal of Investigational Allergology and Clinical  
Immunology, 2010; Vol. 20(7): 596-601.**



## Conozca su nivel de control del asma

**Resultado: 25**  
**¡FELICIDADES!**

Usted ha alcanzado un **CONTROL TOTAL** sobre su asma en las últimas 4 semanas. No ha tenido síntomas ni limitaciones relacionadas con el asma. Consulte a su médico si ocurren cambios.

**Resultado: 20 a 24**  
**CERCA DEL OBJETIVO**

Su asma puede haber estado **BIEN CONTROLADA** pero no **TOTALMENTE CONTROLADA** en las últimas 4 semanas. Su médico podría ayudarle a lograr un **CONTROL TOTAL**.

**RESULTADO: menos de 20**  
**LEJOS DEL OBJETIVO**

Puede ser que su asma **NO HAYA ESTADO CONTROLADA** en las últimas 4 semanas. Su médico puede recomendarle un plan de acción para ayudarle a mejorar el control de su asma.

## Prueba de Control del Asma (ACT™)

Conozca su nivel de control del asma.



Mexico / Spanish  
© 2009, by QualityMetric Incorporated.  
Asthma Control Test is a trademark of QualityMetric Incorporated.  
Versión de México para Centroamérica y República Dominicana.

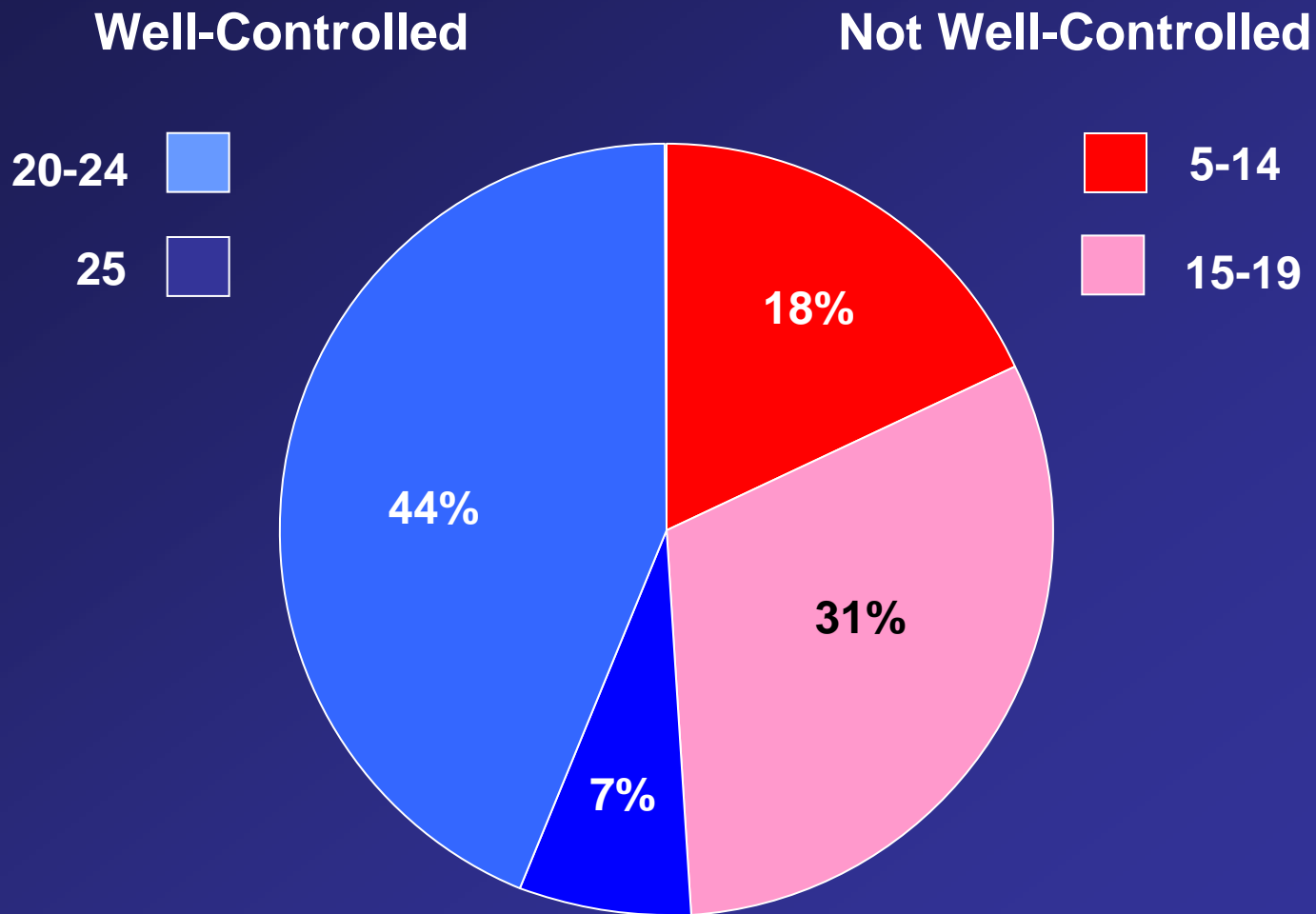
## Prueba de Control del Asma (ACT™)



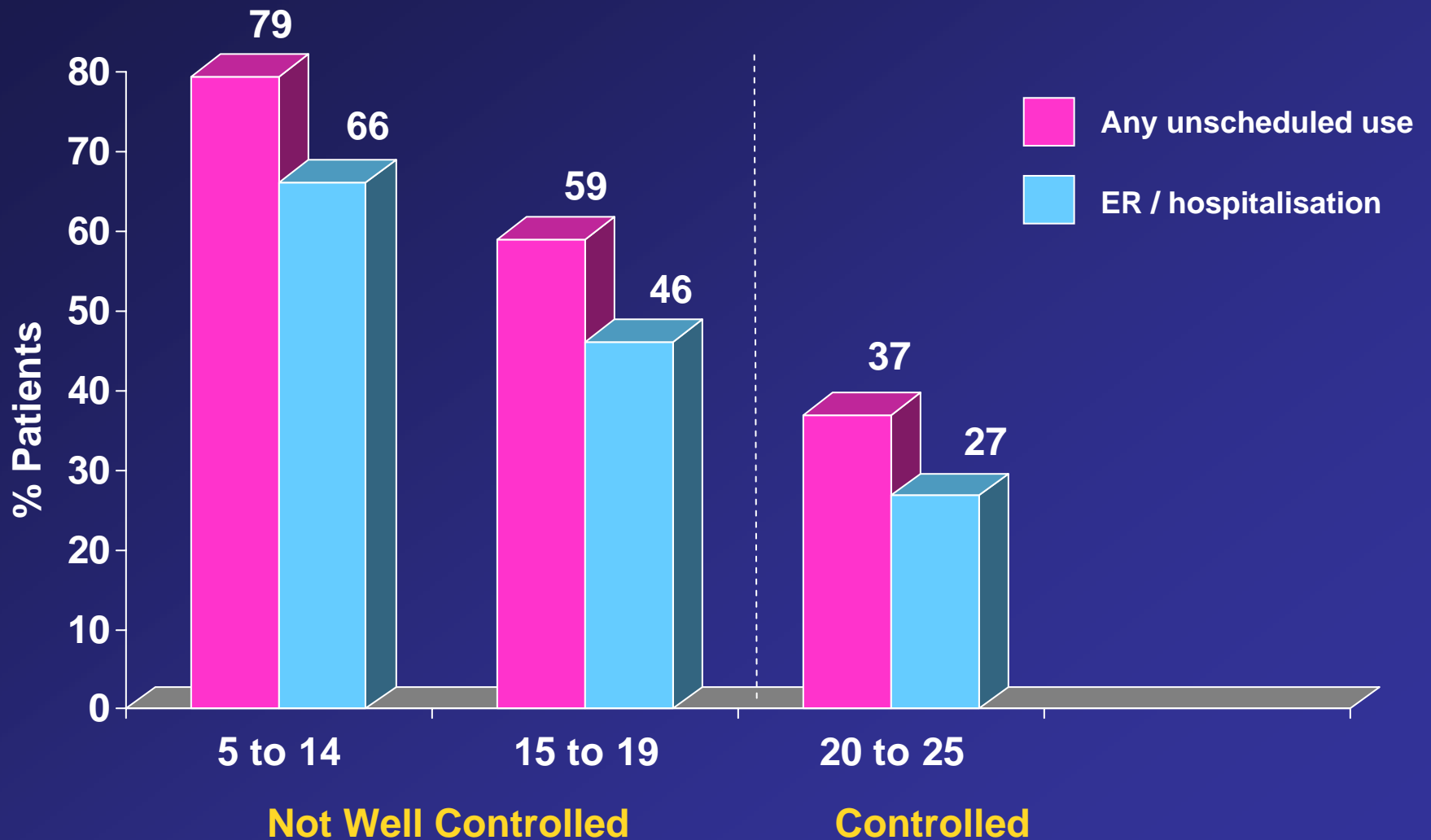
Conozca su nivel de control del asma.



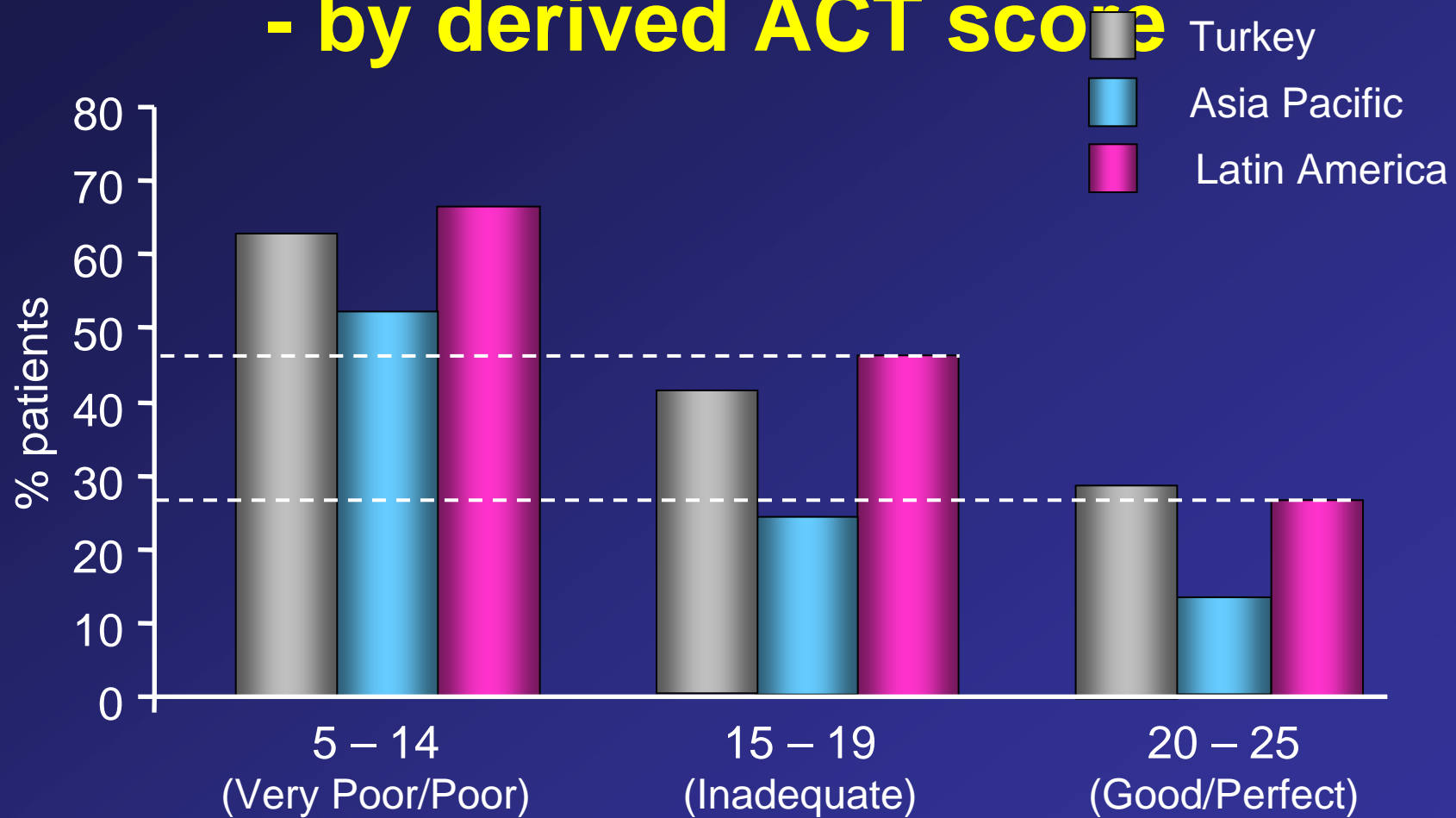
# Not well controlled asthma observed in half of patients



# Not well controlled patients twice as likely to require healthcare resource vs controlled patients



# Emergency room visit or hospitalisation - by derived ACT score



Gemicioglu et al. ERJ 2006; 28;50 (suppl)

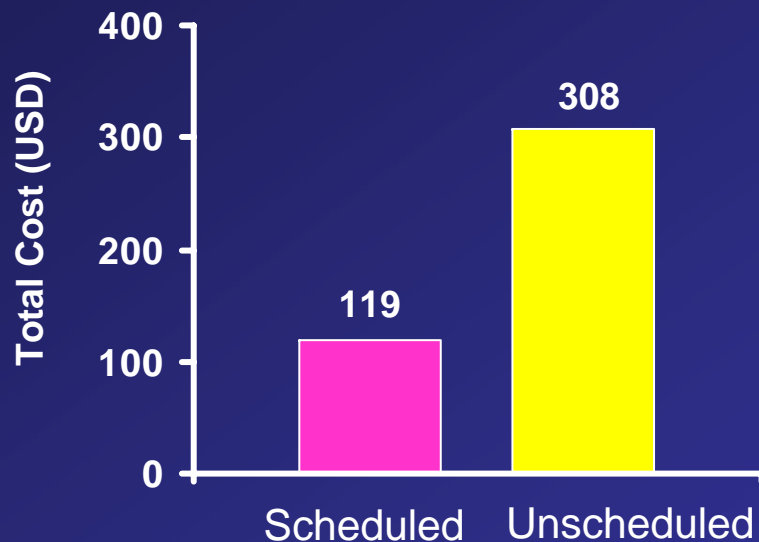
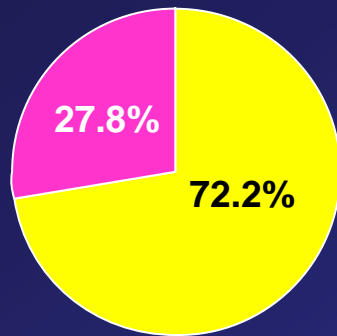
Lai et al Eur Respir Rev 2006; 15: 98; 24-29

Neffen et al ALAT 2006; GSK Data On File

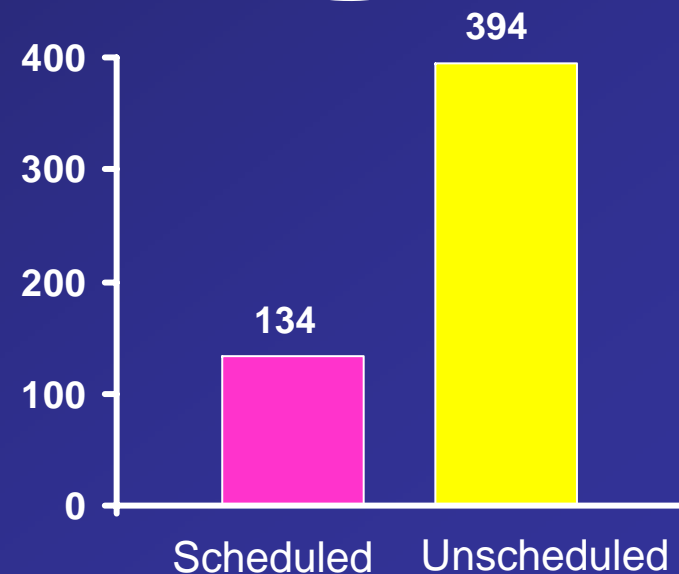
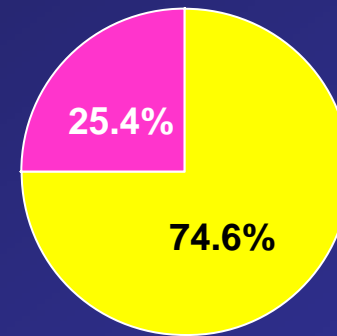
Derived ACT score

# Higher Costs Associated with Managing Asthma in Children Compared to Adults

## ADULTS

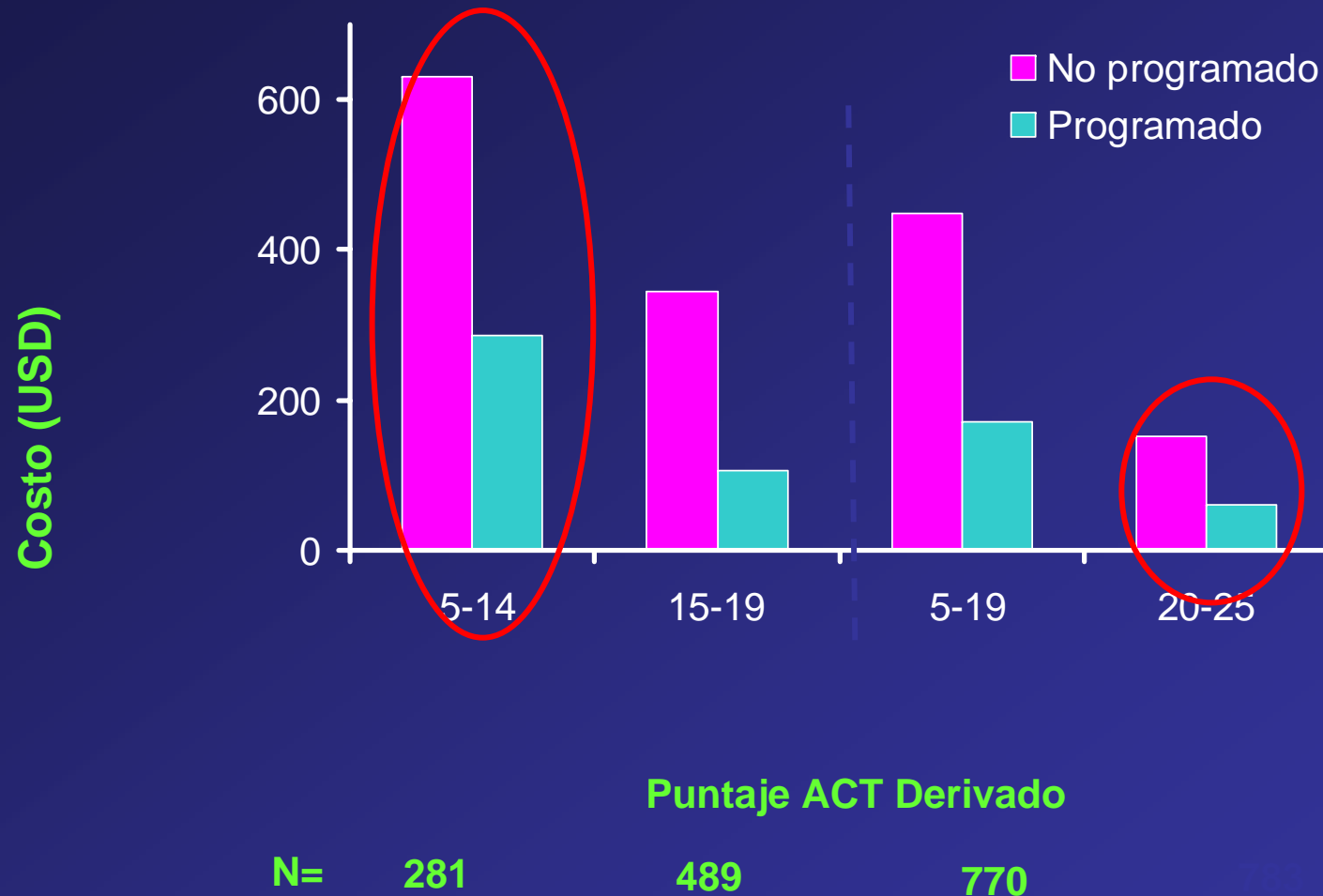


## CHILDREN



Neffen et al ALAT 2006

# Puntaje alto de ACT asociado con bajo costo en los Cuidados Programados / No Programados



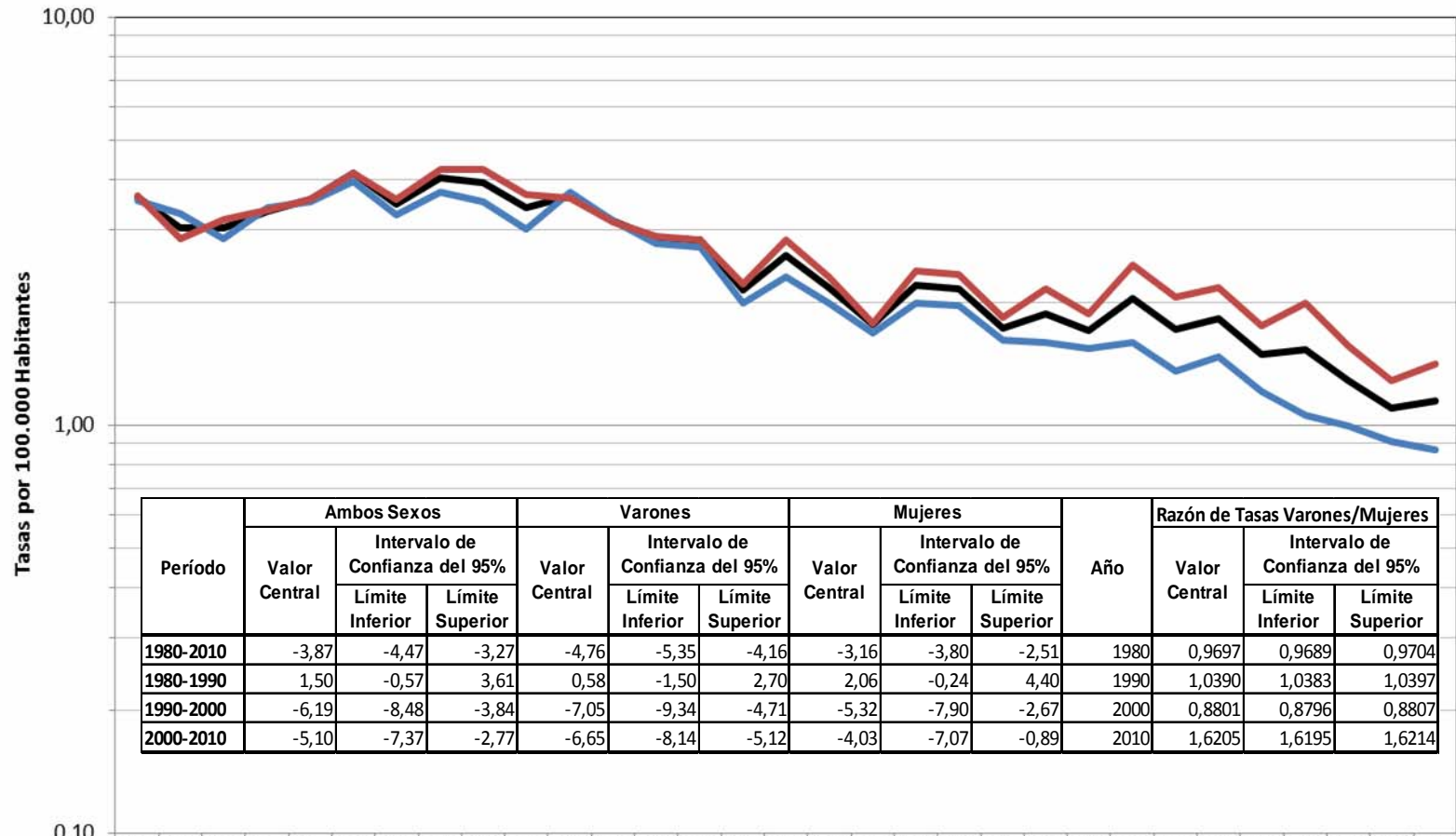
P<0.01 para atención programada

# In Latin America....

- Asthma control falls short of international goals of treatment in a considerable proportion of patients
- The use of unscheduled resource is highest in patients with severe persistent asthma symptoms. However, even patients with mild asthma symptoms incur considerable healthcare costs
- Poorly controlled asthma is associated with more than twice the need for unscheduled healthcare resource than well-controlled asthma
- Assessing patients by their level of control, using the ACT, offers a simple approach that can lead to reduced healthcare resource use
- Management regimens that aim for and result in well-controlled asthma may reduce the need for unscheduled healthcare and direct cost of the disease

## FIGURA 2

### Tendencia de la Mortalidad por Asma según Sexo. Tasas por 100.000 Habitantes. República Argentina, 1980-2010



Período	Ambos Sexos			Varones			Mujeres			Año	Razón de Tasas Varones/Mujeres		
	Valor Central	Intervalo de Confianza del 95%		Valor Central	Intervalo de Confianza del 95%		Valor Central	Intervalo de Confianza del 95%			Valor Central	Intervalo de Confianza del 95%	
		Límite Inferior	Límite Superior		Límite Inferior	Límite Superior		Límite Inferior	Límite Superior			Límite Inferior	Límite Superior
1980-2010	-3,87	-4,47	-3,27	-4,76	-5,35	-4,16	-3,16	-3,80	-2,51	1980	0,9697	0,9689	0,9704
1980-1990	1,50	-0,57	3,61	0,58	-1,50	2,70	2,06	-0,24	4,40	1990	1,0390	1,0383	1,0397
1990-2000	-6,19	-8,48	-3,84	-7,05	-9,34	-4,71	-5,32	-7,90	-2,67	2000	0,8801	0,8796	0,8807
2000-2010	-5,10	-7,37	-2,77	-6,65	-8,14	-5,12	-4,03	-7,07	-0,89	2010	1,6205	1,6195	1,6214

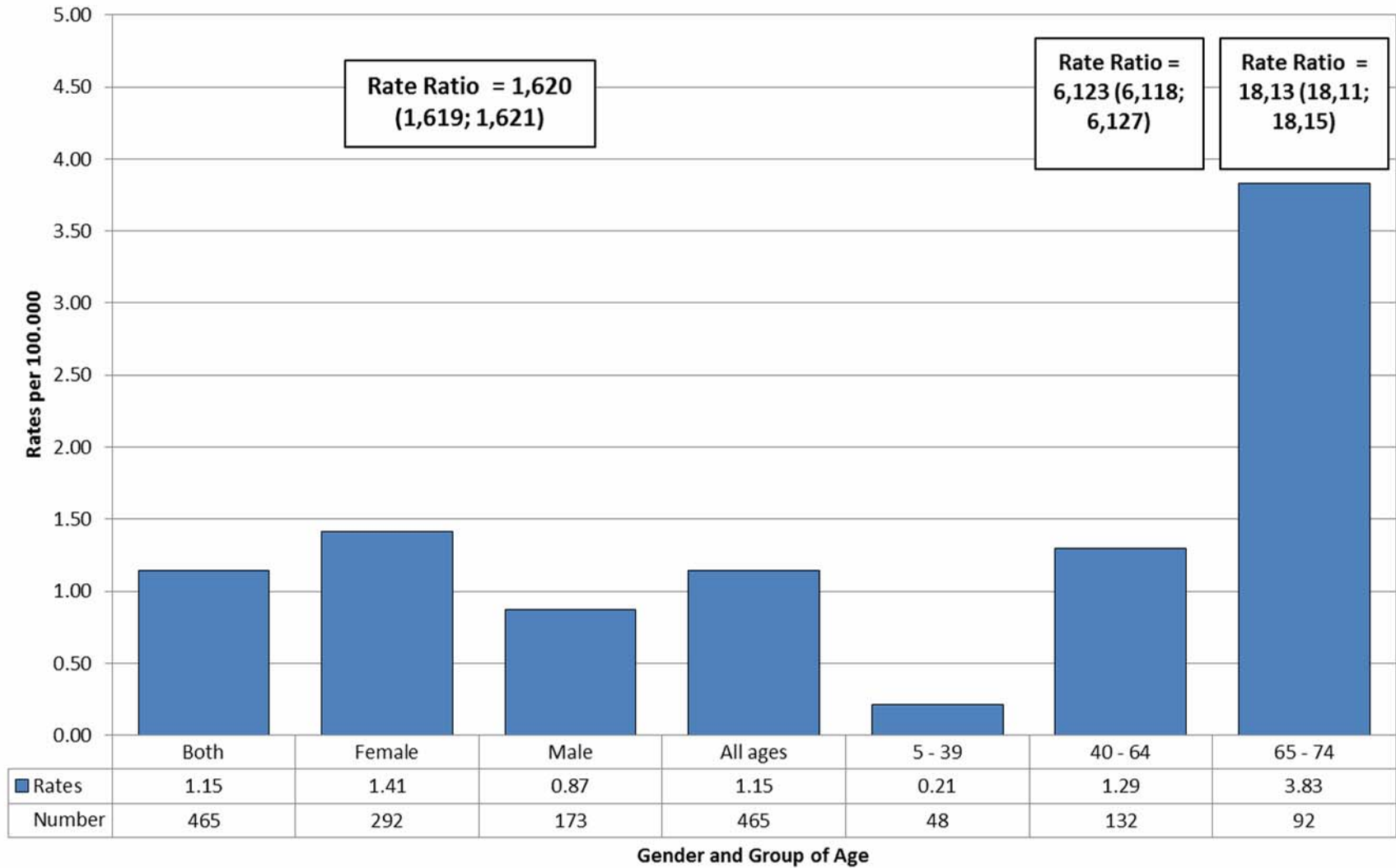
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
<b>Ambos Sexos</b>	3,61	3,03	3,03	3,35	3,57	4,13	3,48	4,03	3,93	3,40	3,65	3,17	2,86	2,83	2,14	2,61	2,17	1,76	2,20	2,15	1,73	1,88	1,71	2,04	1,71	1,83	1,49	1,53	1,29	1,10	1,15
<b>Varones</b>	3,54	3,29	2,86	3,41	3,51	3,95	3,28	3,72	3,51	3,02	3,72	3,16	2,79	2,73	1,98	2,31	1,99	1,68	1,99	1,96	1,62	1,59	1,54	1,60	1,35	1,47	1,20	1,05	1,00	0,91	0,87
<b>Mujeres</b>	3,65	2,86	3,18	3,36	3,58	4,14	3,58	4,22	4,23	3,68	3,58	3,15	2,89	2,85	2,22	2,84	2,30	1,78	2,39	2,33	1,84	2,15	1,87	2,47	2,06	2,17	1,74	1,99	1,56	1,28	1,41

Fuente: Información procesada en el Departamento Programas de Salud del Instituto Nacional de Enfermedades Respiratorias (INER) "Emilio Coni", Administración Nacional de Laboratorios e Institutos de Salud (ANLIS), con base en los datos procesados y publicados por la Dirección de Estadísticas e Información de Salud del Ministerio de Salud de la Nación, Argentina, Febrero de 2012.



# FIGURE 1

## Age and Gender Asthma Mortality. Number of Death and Rate per 100.000 Argentina, 2010



Source: Health Programs' Department. National Institute for Respiratory Diseases (INER "Emilio Coni"), National Administration of Laboratories and Health's Institutes (ANLIS), based on data from Health Statistics and Information Direction, Ministry of Health, Argentina, 2012.



**Muchas Gracias**

*Antonio Berni (1905-1981).*

# Doctors Don't Listen!



Most patients are interrupted by the doctor within **22** seconds of their opening statement